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THE SUDAN IN EVOLUTION

THE SUDAN IN EVOLUTION

A STUDY OF THE ECONOMIC
FINANCIAL AND ADMINISTRATIVE
CONDITIONS OF THE ANGLO-EGYPTIAN SUDAN

BY

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"GREECE OF THE 20TH CENTURY," "MAXIMILIAN IN MEXICO," ETC., ETC., ETC.

9

WITH A FOREWORD

BY

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GOVERNOR-GENERAL OF THE SUDAN AND SIRDAR OF THE EGYPTIAN ARMY, 1899-1916

BRITISH HIGH COMMISSIONER, EGYPT, 1917-1919

GENERAL OFFICER COMMANDING HEDJAZ OPERATIONS, 1916-1919

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1921

**To the
MEMORY
of
HORATIO HERBERT
1st Earl Kitchener of Khartoum
G.C.I.E., G.C.B.I., G.C.B., G.C.M.G., K.P., O.M., P.C.
Field Marshal
Conqueror, Reconstructor and
Administrator of the Sudan
this Work
is
DEDICATED**

FOREWORD

I HAVE much pleasure in complying with Mr. Percy F. Martin's request to write a foreword to his book, *The Sudan in Evolution*.

The Author acquired his impressions in the course of an extensive tour of the Anglo-Egyptian Sudan, during which he was able to visit many of the out-districts and to study the local conditions on the spot, and they will, I am confident, prove interesting alike to the general reader, to those connected with the country, and to the student of African Administrations.

I can personally testify to the conscientious manner in which the Author has undertaken his self-appointed task, to his anxiety to obtain the most reliable and exact information on all subjects, and his readiness to accept criticism and advice from authoritative quarters.

Mr. Percy F. Martin takes full responsibility for the opinions he expresses, and I have no hesitation in recommending his book to those who desire to obtain an insight into Sudan administrative methods and a general knowledge of the history and present conditions of this country.

F. REGINALD WINGATE, *General*.

AUTHOR'S PREFACE

IT was during the winter of 1907-8 that my first visit to the Anglo-Egyptian Sudan had been paid. Pausing upon my way to India, whither I was proceeding upon a journalistic mission, I had the good fortune to meet with the then British Agent at Cairo, the late Sir Eldon Gorst, who advised me strongly to profit by the occasion of being in Egypt to see something of Khartoum and other parts of the Sudan. The suggestion was adopted, and so deeply was I interested in what I then saw and in the evidence of the advancement made in the administration of the country within the comparatively brief period of the British occupation, that I resolved to revisit the Protectorate at as early a date as possible for the purpose of more closely studying its existing and prospective economic conditions.

Several earnest and instructive conversations held with the then Governor-General, Sir F. Reginald Wingate, and some of the more prominent members of the Administration, further convinced me that, in selecting this—one of the least known—among our African possessions as the subject of a new economic study, I should be breaking fresh ground. Many excellent volumes have been written from time to time upon sport and pastime in the Sudan; indeed, from a sportsman's point of view, the bibliography of the country appears to be both rich and varied. But to consideration of its undoubtedly great natural resources, its forms of

administration and general development, very little attention had hitherto been devoted.

Lord Cromer once declared that "in order to really appreciate the zeal and intelligence which the various officials of the Sudan are bringing to bear upon their work, it would be necessary not merely to read their reports, but to visit the remote and inhospitable localities in which their work was conducted." And this visit I had determined, one day, to make.

But the opportunity of putting my project into execution did not occur until many years later. Other and widely separated parts of the world—South and Central America, Mexico, the Balkans, and the Far East—had claimed my attention, and it was not before the autumn of 1913 that I found it practicable to proceed upon my mission to the Sudan. Meanwhile the progress of the country had continued almost without a check. The public at home were just commencing to take some intelligent interest in the remarkable work being carried out—quietly, and without *réclame* of any kind—by some of their countrymen abroad—"men who do not blow their own trumpets, and are but rarely heard of in the Press."

Just then, also, the Sudan was suffering from the effects of a low Nile and an inadequate rainfall; thus my second visit to the country coincided with a period of severe economic depression following upon the footsteps of this double calamity. During my stay in Cairo, Lord Kitchener, then filling the high office rendered vacant by the death of Sir Eldon Gorst, had cautioned me regarding the existing conditions in the neighbouring Protectorate, at the same time expressing the conviction that any set-back in the progress of the country could prove but of a temporary nature, since, in his opinion, nothing could permanently affect the economic advancement of the Sudan. Moreover, it seemed not entirely a disadvantage that I should study the country under

conditions somewhat different from those noted upon the occasion of my first visit ; indeed, for purposes of comparison, the opportunity could hardly have appeared more propitious.

* Nor was I altogether ignorant of the difficulties confronting me. I was made aware that in order to obtain a clear and complete conception of " the real Sudan," it would be necessary to penetrate some distance into the interior ; to journey well away from the railway track and the ordinary haunts of white men ; to traverse, on camels, many hundreds of miles leading through the waterless desert, and to endure severe privations and inconveniences arising from the torrid heat of the day and the penetrating cold of the night, encountered, at this time of the year, in the wilderness. But the general prospects seemed in no way discouraging, notwithstanding the fact that much of the advice tendered proved of the usual conflicting and contradictory character. *Quot homines, tot sententiae.*

Such official assistance as the Governor-General could supply was freely proffered ; to many of the Provincial authorities I likewise became indebted for practical aid in carrying out trekking arrangements, in securing competent and reliable servants, and in selecting the most direct and reliable routes across country.

It cannot, however, be too emphatically pointed out that this unpretentious volume forms in no sense of the word an officially inspired publication. For what they are, the opinions formed and the beliefs expressed are wholly unbiassed ; only the statistical information presented in these pages has been gathered from official sources—since from these alone could the most reliable and the most recent data be gleaned.

It was originally purposed that this volume should appear among the autumn publications of 1914. But the outbreak of the War completely altered those arrangements. The

greater portion of the book indeed had already been written and set up in type, but the more necessary additions have since been introduced in order to bring the work up to date.

The Publishers are indebted to the courtesy of the War Office for permission to reproduce the map accompanying this volume. Owing to the fact that the frontiers between the Anglo-Egyptian Sudan and Libya, and between the Anglo-Egyptian Sudan and French Equatorial Africa, have not been definitely settled, it has not been possible to show these in the map, which otherwise may be regarded as accurate.

CONTENTS

CHAPTER I

	PAGE
Geographical—Ethnological transformation—The correct spelling of "Sudan"—The French Sudan—The Italian Sudan—Belgian territory—Frontier delimitations—International (Anglo French) agreement—Province of Darfur—Physical area—Rainfall—Early explorers—First impressions of Sudan scenery—Plains—Mountains—Rivers—Winds—Sand-storms—Oases—Sunrise—Moonlight—Atmospheric effects . . .	1

CHAPTER II

Early Egyptian rule—Mohammed Ali—Ismail Pasha—Expeditions—Hicks Pasha—Deplorable conditions in the Sudan under Egyptian rule—Rise of Mahdî—His blood and iron rule—Gordon's first mission—His mild policy—Romolo Gessi—Obstruction by Egyptian officials—British intervention—Lord Dufferin's disclaimer—Nubar Pasha—Sir Evelyn Baring (Lord Cromer)—His services to Egypt—British Government's policy in the Sudan—Appointment of Gordon determined upon . . .	16
---	----

CHAPTER III

Arabî rebellion in Egypt—Effect upon the Sudan—British Government policy—Position of the Khedive—Disaster to the Italians—Growing power of the Mahdî—Despatch of Kitchener—His strong control—Niggardly equipment—Battle of Atbara—Mahdî's power broken—Battle of Omdurman—Enemy's heavy losses—Escape of the Khalfâ—His death—Extreme poverty of the people—General conditions of the Sudan in 1889-90 . . .	26
---	----

CHAPTER IV

The Anglo-Egyptian Administration—Gordon's pessimism—Administrative reforms—Early promises redeemed—The people's gains—Emancipation from Egyptian control—Area of the administered Sudan—Convention of 1899—Governors-General— <i>Personnel</i> of the Administration—Permanent Boards—Changes in scope and character of the Government—The

Egypt's contributions—Financial position of the Sudan under the new arrangement—Revenues, 1913-14—Budgetary accounts between 1899 and 1913 inclusive	106
--	-----

CHAPTER XIII

Finances (<i>continued</i>)—Experiences following abandonment of Egypt's financial assistance—Dependence upon physical conditions—Nile failure in 1911, 1912, and 1913—Relief in taxation—Governmental assistance to natives—Monetary position inherently sound—Revenue and expenditure—Departments, Services, and Provinces—Costs of Administration—Expanding customs revenue—Taxation—Investments—Government monopolies—Further enterprise undesirable—The Sudan Loan	117
---	-----

CHAPTER XIV

Medical Department—The Director-General—Absence of epidemics—Common diseases—Births and deaths registration—Sleeping sickness—The Inter-Departmental Committee's Report—Infant mortality—Contagious diseases—Preventive measures—Sanitary barbers—Lack of hospital accommodation—Native patients—Hospital attendances—Savagery of native attacks—The Wellcome Tropical Research Laboratories—Institutional functions—Dr. Andrew Balfour—Dr. A. J. Chalmers—Major R. G. Archibald—Mr. H. S. Wellcome's aims and ambitions—Valuable medical library—Historical Medical Museum in London—Wellcome's scientific benefactions	126
--	-----

CHAPTER XV

The army—The old-time Egyptian soldier—Troops of Ismail Pasha—"Little better than a rabble"—Sir Evelyn Wood's reorganisation—Modern methods and efficiency—Improvements effected—Conscription—Supply and demand—Military School at Khartoum—Cadets and their capacities—First Sudanese regiment—Kitchener's policy—Comparison between Egyptian and Sudanese troops—British garrison at Khartoum—Establishment of Egyptian army in the Sudan—Sudanese battalions—Arms and ammunition regulations—Sudanese women as soldiers' wives	141
---	-----

CHAPTER XVI

Police—Early Egyptian system—Reforms slow but sure—Ghafirs (night-watchmen)—Appointment of European Superintendent—Improvements effected—Selection of candidates—Class of man appointed—Period of service—Conditions—Rates of payment—Régime—Strength of Khartoum Force—Police on night

CONTENTS

xvii

PAGE

duty—Policing Khartoum and Omdurman—Difficulties encountered—Mounted Police Corps—Necessary additions—Arms and ammunition	153
---	-----

CHAPTER XVII

Education—System efficiently organised by Sir James Currie, first Director of Education—Successful results attained—Lack of funds—Gordon College—Primary School—Secondary School—Departments—Engineering—Instructional workshops—School fees—Hours of attendance—Curriculum—Examinations—Vacations—Teaching staff and lectures—Wellcome Research Laboratories—Voluntary system—Dangers attending compulsory instruction—Improving attendances of pupils—Mr. J. W. Crowfoot	160
--	-----

CHAPTER XVIII

Transportation—Early construction—Initial difficulties and discouragements—Condition of country and people—Dongola campaign construction—Wadi Halfa—Abu Hamed line—Wadi Halfa—Kerma branch—Difficulties of pioneers—Native and Egyptian Labour—Features of present railway—Gradients—Water-supply—Workshops—Light railways—Probable extensions—Some old lines—Pilgrim traffic—Kassala line	169
--	-----

CHAPTER XIX

Transportation (<i>continued</i>)—Steamers from and to Europe—Experiences with some disagreeable passengers—The objectionable "Anglo-Indian"—The "Officials' route"—The Union-Castle Line—Advantages offered by the Port Sudan route—Some other lines—Sudan Development Company's experiment—Government river steamers—The fleet—Transfer of steamers to the Railway Department—Economy and efficiency obtained—Fuel—Departmental administration—Revenue and expenditure for the year—Substantial surplus anticipated for 1914 not realised	180
---	-----

CHAPTER XX

Transportation (<i>continued</i>)—River steamers—The White Nile fleet—Type of boats—Some drawbacks to present arrangements—The Dongola Reach—Class of passengers and traffic carried—Barges in tow—A trip up the White Nile—Through the "Sudd" region—Dr. Wm. Beam's papyrus "Sudd" researches—He produces superior white paper pulp—"Wooding"—Antiquated methods—Much noise and more delay—Question of coal briquettes—Departmental enterprise—Uganda transit facilities—Advantages offered to sportsmen	191
---	-----

CHAPTER XXI

	PAGE
Port Sudan—Comparison with Suakin—Lighting arrangements—Annual cost—Safety of harbour at night—Depth of water—Harbour lights and beacons—First vessel to call—International shipping—‘teamship companies’ boats making regular calls—Climate—The new town of Port Sudan—Scenic attractions—Value of building-land—Restrictions and regulations—Insect pests—Berths—Quays—Mechanical equipment—Board of Harbours and Lights	201

CHAPTER XXII

Native races—Ethnological groups—Sudanese Arabs—Treatment of native tribes—Different tribes in the provinces—Native customs—Lip-perforation—Self-mutilation—Strange costumes and head-dresses—Tribal face scars—Mutual flogging—Arab music—Dance and poetry—The <i>Book of Songs</i> —Arabian medicine—Native doctors—Medical assistance given to natives—Governmental and missionary hospitals	208
---	-----

CHAPTER XXIII

Slavery in the Sudan—Conditions in 1867—Those in 1882—Abolition of slave-trade by the British Administration—Slavery Repression Department—Kidnapping and slave dealing on the frontiers—Darfur trouble—Connivance of Abyssinians—Labour—Supplies at Khartoum and in Provinces—Convict labour—Domestic servants—Registered labour—Dinkas and Arabs	216
--	-----

CHAPTER XXIV

Private enterprise in the Sudan—Mr H S Wellcome's archaeological excavation camps—Explorations and discoveries—Early difficulties and perils—Turbulent native outlaws—Local opposition—Indolence of the natives—Enticements to industry and thrift—Winning confidence of the natives—Welfare work and reforms—Drunkenness attacked—Curse of <i>merissa</i> —Reducing crime—Evolving order out of chaos—Discipline, drills, and training—Creating new industrial element—Famines—Overcoming scarcity of water and food—Workshops and industrial schools established—Lord Kitchener's appreciation—Moslem approval and co-operation—Sobriety triumphant—Successful savings-bank system	225
--	-----

CHAPTER XXV

Religious questions—Early Christian missions—First Roman Catholics in the Sudan—Father Ohrwalder—General Gordon

CONTENTS

xix

IAGR

and the missionaries—The Church Missionary Society and its operations—The Austrian Mission—Missionary stations in other parts of the Sudan—North American Mission—Khartoum Bishopric—Missionary work undertaken—Dr Gwynne—Work of the Church of England—Native schools—Greek Church—Copts—Islamism—As an educational force—Mosques—Pilgrims—Annual exodus—Government regulations . . .	239
--	-----

CHAPTER XXVI

Archaeology—Valuable excavations—Government and private support—Professor Garstang's discoveries—Meroe—Astronomical Observatory—King Netegamon's statue—Bust of Augustus—Dr G A Reisner's excavations at Kerma, Gebel Barkel and Nuri—Harvard University support—Hyksos period revealed—Discovers tombs of Ethiopian kings—Valuable historical evidences found—Professor F L Griffiths, Oxford University—Meriotic discoveries at Napata—Mr H S Wellcome finds ancient sites farthest south—Archaeological excavations—Gebel Moya etc—Remarkable encampments and equipment—Unique discoveries and conditions—Dr Reisner's valuable help—Kitchener and Wingate deeply interested . . .	248
---	-----

CHAPTER XXVII

Society—January festivities—Importance of the month—Official ceremonies—Palace receptions—Official attendances—Uniforms—Restrictions imposed—Native State costumes—Governor General's season—Palace hospitality—Social amusements—Sports and entertainments—Lack of theatre or concert hall—The Shambat Gardens—The Sudan Club—Tennis parties and gossip—The domestic servant problem—Class of servants obtainable—Cost of living—Housekeeping troubles—Furnishing . . .	260
--	-----

CHAPTER XXVIII

Commerce—Antiquity of Arabian trade—The Red Sea and Nile Valley route—Trade in Mahdi times—Commercial crisis, 1911-1912—Long-credit system—Commercial travellers—Sudan Chamber of Commerce—Tayiba Experimental Farm and cotton-growing—Causes of commercial depression—Greeks as traders—Remarkable enterprise—Forgery of British trade-marks—Remedies—Lack of European exploitation—Opportunities open—Agricultural implements—Farm machinery—Oil-burning engines—Cotton goods—Native requirements—Grey goods and prints—Banking . . .	268
---	-----

CHAPTER XXIX

	PAGE
Gum trade—Importance to revenue—Production—System of Government royalties—Exports to foreign countries—Egypt as a customer—Government restrictions—Gambling by dealers—The gum season—Kordofan market—Provincial tolls—Scenes in the gum market—Gum from Gedaref—Tobacco—Government control—Senna—Future of European trade—Insect pests—Success of Wellcome Laboratories' experiments—Mining—Government policy—British companies—Prospecting—Difficulties and costs	280

CHAPTER XXX

Private companies and Government support—Failures—The original Sudan Plantations Syndicate—Profits—Sources of revenue—New Egyptian Company—Reduction of Sudan interests—Papyrus commercially considered—Sudd Fuel ('Suddite') Company—Predominant German interests	292
--	-----

CHAPTER XXXI

Agriculture—Cotton experimental farms—Tayiba—The Gezira Plain—Topographical features—Climate—The favourable soil like that of India—Water taxes and cultivators—Quality of soil—Kamlin experimental station—Operations of the Sudan Plantations Syndicate—Agreement with the Government—Installation at Tayiba—The tenants—Grant of financial aid	299
---	-----

CHAPTER XXXII

Irrigation—Importance of the Nile—Sir Wilham Garstin's projects—Blue Nile scheme—Irrigation Department—The Tokar scheme—Mr P M Tottenham—Mr C Dupuis—Engineering features—Water control—Probable cost—Government energies—Irrigation difficulties—Considerations of moment—Sudan Irrigation Service—The Gezira scheme—Sennar Dam—Cultivating 3 000,000 feddans—Present water supply—Materials for construction—Anticipated profits—Lancashire's interests—White Nile project—Cost of dam—Egypt's concern—Sudan's advantages—Nile Delta Canal—Nile tributary waters—Sir Charles Watson's opinion—Sir William Garstin's proposals—Irrigation rather than transportation	304
---	-----

CHAPTER XXXIII

Agriculture—Ancient methods—Modern systems—Government encouragement—Natural improvidence of the people—Department of Agriculture—Native irrigation—Crops under	
--	--

CONTENTS

xxi
PAGE

cultivation—Cereals—Wheat—Dura—Ground nuts—Dates—Varieties of produce—Transportation anomalies—Profits upon land cultivation—Government Experimental Farms—Shadufs—Sakias—Taboot—Cattle trade—Prospects under normal conditions—Wealth of natives in cattle—Pasturing and watering in the interior—Respective grazing districts—Recognised rights—Relations between native tribes—Trade in hides and skins—The Sudan's customers—Veterinary Department	326
--	-----

CHAPTER XXXIV

Agriculture (<i>continued</i>)—Antiquity of cotton cultivation—Advantages and disadvantages of the Sudan—Present output—Natives engaged—Importance of industry—Experiments in Zeidab—Cultivation in the provinces—Cotton cultivation at Tokar—Methods adopted—Classes—Native cultivators—Improvement in system—Modern agricultural implements—Effect of tillage in flood times—Average yields—Official duties—Government conditions of help—Sowing—Picking—Marketing—Cultivation and values—Protecting the grower—Former buyers' methods—Sales by auction—First- and second class cotton—Export to Egypt—Mr W A Davie—Improvements in cultivation—Early reports and subsequent results	336
--	-----

CHAPTER XXXV

Forests—Danger of destruction—Attempts at preservation—Wooded provinces—Tree planting experiments—Rubber—Result of experimental cultivation—The Sudan Rubber Syndicate—Government exhibits in London—Timber gum and palm forests—Openings for further trade—Land speculation—"Boom" of 1906-7—Collapse in 1908—Gambling by Greek land speculators—The Gezira lands—No speculation allowed—Land prices in Khartoum—Former and present rates—Land prices at Omdurman—Provincial rates—Agricultural land—Port Sudan land and building leases—Unsatisfactory conditions—Proposed revision of Ordinance	348
--	-----

CHAPTER XXXVI

Travel in the Sudan—Conflicting opinions regarding outfits—Attractions of <i>saffaria</i> —Some attendant drawbacks—Camel-riding—Water-supply—Danger of drinking from rivers—Providing <i>fantasses</i> —Sterilising 'Tabloids'—Medical supplies necessary—Risks of an overburdened commussariat—Necessity for careful consideration and expert advice—The size of a caravan—Lengths of daily journeys or <i>schids</i> —Rest houses—Provision of a tent—A full equipment—Lack of protection against heat and cold—Mosquito nets	357
--	-----

CHAPTER XXXVII

	PAGE
Travel in the Sudan (<i>continued</i>)—Provisions and supplies—Liquids—Difficulties with camel drivers and servants—Early starts imperative—Improvvidence of some travellers—The interior no place for white women—Danger from proximity to wells—The tick—Tips for rapid travellers—The <i>hamla</i> —Neghgence of native attendants—Quaint hospitality of natives—The village sheikh—His utility—The value of a "gift"—The Hadendowa's idea of a "present"—A sheep sacrifice—Danger from sun-strokes—How best to avoid them—Heat-strokes—Vegetation of the desert—A waterless country—Bird and plant life . . .	369

CHAPTER XXXVIII

Travel in the Sudan (<i>continued</i>)—Camels—The opinions of some distinguished travellers—Others of my own—A good camel and a bad one—The proper kind of saddle—Difference between hire and purchase—The <i>bagil</i> —Beware of the sheikh contractor—Rates of camel hiring—The vagaries of the camel—Camel brands—Native-owned camels—Father Ohrwalder's she-camel—Camel breeding—The camel's speed—Some notable records—Dr Poncet's description of a camel's endurance—Buying and selling of camels—Camel tracks in the Sudan . . .	380
--	-----

CHAPTER XXXIX

Sport in the Sudan—Vast area of the country—Enormous distances to traverse—Value of route maps—Government publications—The Survey Department—Trekking by sportsmen— <i>Hamla</i> arrangements—Native guides—Their value as trekkers—Lost in the desert—Some disasters—Dangers of the bush—Loss through disease—Abundance of game—Destruction of elephants by natives—Better supervision desirable—The Game Preservation Department—Official handbook for sportsmen—Difficulties to be guarded against—"Notes for Sportsmen" . . .	389
---	-----

CHAPTER XL

The Sudan as a tourist centre—Combating geographical ignorance—Ordinary type of traveller and tourist—Facilities and difficulties—Governmental assistance—Comfort and safety assured—Pleasures and pastimes in the capital—Khartoum Golf Club—Horse shows—Public support lacking—Military and civilian co-operation—Winter race meetings—The lure of big-game shooting—Sudanese armour—Resemblance to ancient Greek—Peculiar attractions of the Sudan	400
---	-----

CONTENTS

xxiii

CHAPTER XLI

	PAGE
The fifteen provinces—Populations—Areas—Mamurias—Darfur	
• —The Bahr-el-Ghazal—Sanitary arrangements—Sport and attractions—The Dinka and Zande tribes—Wau—Difficulties of transport and approach—Berber—Historical associations—Campaigns of 1884 and 1898—Under Mahdi rule—Destruction of towns—The industries of Berber—Cattle plague—Shendi—Biblical associations—Under British occupation—Metemmeh—Dervish barbarities—Province industries—Sheep-breeding—Irrigation schemes—Pumping plants—Cotton cultivation—Basket weaving—"Dom"-nut trade—Atbara—Railway headquarters—The town—Sanitary regulations—The Church—Population	407

CHAPTER XLII

Blue Nile Province—Agriculture—Cattle-rearing—Colonel E. A. Dickinson—Finances—Wad Medani—Abu Delsig—Kamlin—Managil—Meselemia—Dervish destruction.	
Dongola—In Mahdi times—Old Dongola—Condition of people—Improvements effected—Improvidence of natives—Abu Hamed and Kareima Railway—Cattle trade and plague—Sanitary conditions—Merowé—Sir H. W. Jackson's work—Physical features of town—Civil Hospital—Health of people—Argo—Debba—Poverty of the people—Historical associations—Kitchener's tree—Interesting localities—Kerma—Ancient ruins—Khandak—Condition of inhabitants—Korti—1885 campaign—A memorable march	425

CHAPTER XLIII

Darfur—Geographical features—Conquest in 1916—Death of Ali Dinar—The inhabitants—Beni Gelul—The Fors—Economic advantages of Darfur—Cattle and horse breeding—Late Ali Dinar's stud-farm	440
---	-----

CHAPTER XLIV

Halfa Province—Physical features—Population—Industries—Wadi Halfa—Historical associations—Wolseley and Kitchener—The railway—Official residences.	
Kassala—Physical features—The desert—Mountains—Curious characteristics—Vegetation—Egyptian and Italian rulers—Dervish attacks—Gallant Italian defence—Former trade and agriculture—Kassala fort—Old Kassala—Italian garrison—Egyptian battalion—Desecration of ancient mosque—British restoration—Gedaref—Picturesque appearance—The rains—Difficulties of locomotion—Prairie fires—Military station—Old soldiers—Gallabat—Mafaza—Sofi	445

CHAPTER XLV

	PAGE
Province of Khartoum—Khartoum North—Geili—Omdurman—In the days of the Mahdi—Charles Neufeld—Condition of thoroughfares—Khartoum in 1847, 1850, 1860, 1885, and 1898—Former population—Early commerce—A garden city—House gardens—Palace gardens—Governor-General's official residence—Palace hospitality—The new and old Khartoum—Streets, roads, and avenues—Open spaces—Public buildings—Municipal services—Water-supply—Women water-carriers—Governors of Khartoum—Private residences—Bachelors' diggings—Hotels: Difficulties of management; the Grand; the Gordon; the Royal—Building plots—Price of land—Land boom of 1907—The collapse—Climate—Town improvements—Public holidays—Sanitary Board—Drainage system lacking—Sanitary administration	460

CHAPTER XLVI

Kordofan Province—Physical features—Absence of rivers—Communications—Population—Abu Zabad—Bara—El Odaiya—El Obeid—Administration—Old town and new—Mahdi depredations—Water—Wells—Greek merchants—Gordon's prejudices—Lack of hospital accommodation—Kordofan's contribution to revenue—Hospitals at Nahud and El Dueim—The Hicks tragedy (1883) site—Lack of a memorial—Opportunity to erect one—Gum merchants—Their methods—Nahud—Native donkeys—National Bank of Egypt's gum transactions—Headquarters of the trade	480
---	-----

CHAPTER XLVII

Mongalla Province—Area—Population—New administrative divisions—Progress—The Lado Enclave—Agreement with Belgium—Province tribes—The Beirs and their settlement—Lack of education—The Governor, Major C. H. Stigand, killed in action—Modern Mongalla town—Official and native residences—Climate—Scenic attractions—Sleeping sickness—Agriculture—Game—Elephant trophies—Military establishment—Police—Bor—Inspector's residence—Climate—Insect pests.	
The Nuba Mountains Province—New administrative area—Population—Cattle owners—Wealth of natives—General prosperity—Talodi—Mud dwellings and offices—Towns and villages	487

CHAPTER XLVIII

Red Sea Province—Area—Population—Condition of the people—Revenues—"Tax" or "rent"—Land values—Suakin—Picturesque features—The gateway of the Sudan—Railway communications—Under Mahdi rule—"Kitchener's Gate"—
--

CONTENTS

XXV
PAGE

European residence—Native quarter—Squalid conditions— Education—Government school—Efficiency of pupils—A model establishment—Rivalry of Port Sudan—Old Suakin —The tribes—The Bishareen—The Hadendowas—Tokar —Situation—Climatic conditions—Historical associations— ' Town improvements—Erkowitz—Government residences .	498
--	-----

CHAPTER XLIX

Province of Sennar—Area—Population—Scenic features—Game— Old kingdom of Sennar—Gordon's visit—Sieges and destruc- tion—Dervish rule—Sennar old town—The modern town and official buildings—Experimental agricultural farms—Mamurias —Dar Fung—Karkoj—Singa—Government buildings— Roseires—Battle (1898)—Military works—Police force— Strength increased—Troubles on Abyssinian frontier—Educa- tion—Gebel Moya exploration work—Abyssinian history— Effect upon the Sudan—French hostility—Menelik's treachery —Italian reverses—Defeat of Baratieri (1896)—Sabot-Pibor .	509
--	-----

CHAPTER L

Upper Nile Province—Area—Population—The Nuers—Condition of the people—Their agricultural pursuits—Cattle industry— Difficulties of the Administration—Nasser—Malakal—Educa- tional drawbacks—New Government headquarters—Renk— Mosquito plague—Abwong—Abyssinian Frontier Station— Gambella—Kodok (Fashoda)—Marchand's expedition— Kitchener's intervention—Anglo-French agreement.	
White Nile Province—El Dueim—Nomadic tribes—Cattle disease losses—Scenic attractions—Agriculture—Native market—El Geteina—Goz Abu Guma—Greek traders—Tribes—Kawa— Wooding station—Reckless forest destruction—Kosti—Effect of the El Obeid railway—The swing bridge—Native town— Taufikia—Baker's headquarters	520

APPENDICES

APPENDIX A—

I. Animal or Herd Tax	531
II. "Suk" or Market Dues	532
III. Trader's Tax	532
IV. Licences	533
V. Khartoum Rates	534
VI. Omdurman Rates and Dues	535

APPENDIX B—

I. Extracts from New Customs Ordinance	537
II. Travellers' Taxes	541

xxvi THE SUDAN IN EVOLUTION

	PAGE
APPENDIX C—	
I. Goods Transport Charges at Suakin	542
II. Sudan Government Railways	543
APPENDIX D—	
Khartoum Province Population	545
APPENDIX E—	
Measures and Weights	546
INDEX	551

INTRODUCTION

That is the best Government which desires to make the people happy, and knows how to make them happy.—MACAULAY.

ALTHOUGH the same eminent British soldiers and statesmen who brought about so great a reform, political and social, in Egypt helped to mould the destinies of the Sudan, the problems confronting them were different, and, to some extent, more simple. Western civilisation had already advanced to an appreciable extent in the land of the Pharaohs, whereas the Sudan, that huge tract of sparsely inhabited country covering an area of nearly one million square miles, was still in an almost complete state of barbarism. The strong barrier to progress which was found to exist in Egypt in the form of the country's quasi-religious institutions found little reflex in the Sudan, and whereas the political situation in the parent country continued to occupy the serious attention and unrelaxed vigilance of the Administration, in the adjoining province politics can scarcely be said to have interposed at all. In Egypt for decades an undercurrent of opposition, now foreign, now native—at times both—had to be met and overcome; in the Sudan there existed among the primitive people no contentious party to impede progress or to render the aid of the Administration either difficult or inoperative; and if the innumerable physical difficulties which existed in the newer country found little counterpart in the older, and if the extreme poverty and misery of the various tribes rendered the task of governing them a doubly responsible one, there existed a freedom from convention, an absence of irritating precedents, which left the hands of the Administration free and enabled them to introduce with little or

no demur the many excellent measures relating to justice, finance, and local government, all of which had been carefully thought out and weighed beforehand.

When Vespasian once inquired of Apollonius: "What was the cause of Nero's overthrow?" the instructive reply was to the effect: "Nero could touch and tune the harp well; but in government sometimes he used to wind the pins too high, sometimes too low." That is one danger which must be carefully avoided by those who would control the Eastern races; and the policy of preserving an even and equitable authority over all classes, sects, and conditions alike has proved one of the most valuable factors in the British administration of the Sudan.

To exercise an administration based upon these principles over a country of such vast dimensions, of such remoteness and sparseness of communication, proved, as may be readily understood, no simple problem. While for its successful accomplishment every credit must be paid to the past and present Governors-General and their able staffs and officials, yet much should be attributed to the good qualities, common sense, and orderliness of the better elements among the superior native tribes that survived the long and merciless enslavement under the Mahdi and Khalifa. In their happy and prosperous condition to-day it is difficult to realise that the present inhabitants are the same peoples who were for so many years crushed and cowed, robbed and ground down to abject poverty. How wonderfully have they responded to the efforts of their new administrators, who rescued them from despair and threatened extermination! This remarkable transformation forms a high tribute to those who, with such self-sacrificing chivalry and untiring zeal, devoted themselves for sixteen years to that rescue, and then for a score of years to the regeneration and uplifting of these unfortunate beings.

Cromer, the strong, wise statesman who in Egypt had brought order out of chaos, and established clean justice, peace, and prosperity, resolutely supported Kitchener in his inflexible determination to redeem the Sudan with its sorely afflicted millions, and at the same time to redeem

England's honour. Wingate, a fine soldier and administrator, and accomplished linguist, who has rendered forty years' loyal service of incalculable value to the Empire, was Kitchener's "right hand" and chief intelligence officer.

The record of Kitchener's marvellously organised and skilfully directed campaign of liberation and the subsequent reconstruction of the Sudan will gloriously illumine the pages of history for all time. His small but ever-victorious army was led by efficient young British officers trained in Kitchener's intensive school. It is a notable fact that most of the British military officers who achieved great successes in the world war were "Kitchener men."

Following the reconquest of the Sudan, Kitchener, Cromer, and Wingate, assisted by well-chosen men imbued with the same spirit and patriotism, have wrought wonders in re-awakening, remoulding, and developing this once hopeless country.

Of those three great chiefs, Wingate alone remains to serve King and Country—Kitchener and Cromer have, alas! passed away.

The object striven for in compiling this volume is to trace the extraordinary transformation effected in the Sudan from the time of the British occupation in 1899, and to show to what direct causes may be attributed the almost undisturbed era of peace and prosperity which has followed the final destruction of the Mahdists' power.

The general economic development of the country by a wise and generous Administration, the introduction of simple but just land laws, the spread of cultivation, the provision of an indispensable water supply, the introduction of railways and steamships, the great benefits of education, and the encouragement of internal and external commerce, form the basis of many of these modest studies. Social customs, native pursuits, and tribal customs, modes of life, trade and industries, also natural sport, big-game shooting, climatic advantages, and the delights of novel travel have been dealt with.

Considering the immense area of country administered, the difficulties in moving troops rapidly, and the insignifi-

cantly small force available at any time, the general peace-fulness which reigns among the numerous tribes of the Sudan, who for ages had continuously been at war with one another and among themselves, is noteworthy. Now and again disturbances occur, and for many years to come they are bound to occur in the neighbourhood of the Abyssinian frontier and in parts of the country not yet brought under a close and effective administration.

The zone of greatest danger lies between the River Atbara, where it enters the Amhara district, and the valleys where the Blue Nile and other southern rivers cross the Abyssinian border. The natives of these districts, a mixture of negro and Arab ruffianism, prove difficult to handle, for they own fealty to no recognised form of government. For years hill-men have swooped down upon the defenceless denizens of the valleys, looting and killing as they pleased and with comparative immunity. Frontier raids, followed by ineffective punitive expeditions, will continue until the Abyssinian Government joins hands with the Sudan to wipe out completely these pestilential brigands—and this would mean a considerable outlay for both Administrations.

Four months after the European War broke out the situation, already serious, was aggravated by Turkey joining Germany and Austria against Great Britain, and it was generally supposed this would provoke political unrest leading to Sudanese defection. Quite as much surprise as satisfaction was felt by the authorities when this supposition proved to be a mistake; the negation of Germany's fervent hopes and Turkey's wild attempts in the direction of political trouble for England in Central Africa proved one of the most gratifying experiences of the War.

One reason for the altogether admirable conduct of the Sudanese under the unusual circumstances was the deep and lasting impression which twenty years of just British rule in the Sudan had made upon the minds of the Moslem people. But for the implicit trust which is, and always has been, placed in the good faith and in the unselfishness of British administrators, who can doubt that the calls to religious prejudice and fanaticism made by our enemies must

have fallen upon fertile ground ; and the cry of the *Jehad*, or religious war, as preached by the Ottomans, have become an effective instrument in the hands of sedition-mongers ?

Instead of rising against their " infidel " Christian rulers, every important secular and religious chief, the notables of every province and district, showed their appreciation of the benefits they had experienced abundantly from British rule, and vied with one another in expressions of loyalty and devotion to the British Government. It may be asked with some feelings of pride what other colonising nation of the world could point to a similar result of administering a people in every way different from their rulers—in faith, in speech, in race, in manners, and in material interests ?

For it should be remembered that in the Oriental countries which we control there exists no other kind of bond between the Christian governors and the Moslem governed than these same material interests. The Sudan Government at first had been accused of violating the people's rights by abolishing their ancient privilege of practising slavery. The Sudanese people, however, learned fully to appreciate the fairness and reasonableness of our action and the benefits which have been enjoyed as the outcome of a policy pursued in the face of the most determined opposition, which, nevertheless, yielded gradually and permanently, mainly owing to the resolute, just, and tactful manner in which the regulations had been carried out by British administrators.

The wise recognition extended, and the consistent support accorded to Mohammedanism, as the religion of the greater and more enlightened portion of the inhabitants, in strict accordance with the earliest promises made by the new rulers of the Sudan, have borne highly gratifying fruit in the form of the all-powerful religious leaders' support, just when such support became of vital importance to the Administration.

The most serious apprehensions vanished when the question of the Sudan's loyalty was put to the test. The result proved a triumph for the Administration and a source of sincere congratulation to the people. While nothing had been left to chance, the vigilant Government having taken

every necessary precaution against possible trouble, an eventuality always to be reckoned with in a country where religious fanaticism has once held sway, the extraordinary response of the Sudan to the appeal of the Governor-General, Sir Reginald Wingate, for support will stand out as potent and irrefutable an attestation of Britain's aptitude as of its ascendancy as a colonising Power.

If any lurking doubt had existed regarding the innate loyalty of the people of the Sudan, it was removed on the occasion of the political troubles of December 1914. For many months previously agents employed by unscrupulous Germans and Turks had been at work among the ranks of the army and civilian employees, just as they already had been busy among similar classes in Egypt. The fact was known to the Sudan authorities, for the Intelligence Department at Khartoum remains, as it has been from the first days of the British occupation, well posted in all respects connected with the political situation. The seed of disaffection so industriously sown fell upon stony ground; the amount of success met with proved of the slightest, and the steps taken to check and counter the evil influences at work proved astonishingly effectual.

The general economic conditions of the Sudan, after three years of drouth causing commercial and agricultural depression, were indeed favourable for the work of the paid agitator, but there existed a profound feeling of loyalty towards an Administration which, over a period of two decades, had succeeded in bringing the people out of a state of barbarism and starvation to civilisation and comparative prosperity. It needed no deep powers of discernment to realise that the people of the Sudan possessed every incentive and every intention to remain loyal to the British Administration, or that, in the event of genuine trouble, the Government could rely upon British, Egyptian, Sudanese, and Arab co-operation in meeting it.

Towards the end of October in the year 1914 the Governor-General very sagaciously undertook a wide tour throughout the country, commencing with a visit to the Red Sea Province, of which, some twenty years previously,

he had for a short period been the very popular Governor. Sir Reginald Wingate, like his predecessor Lord Kitchener, is held in especial esteem in this province, for it was here that both administrators had carried out some of their most successful work.

Expressions of loyalty to the enlightened and benevolent Government of the Sudan, and of sympathy with the British Empire, were received from the Ulema (the official religious sheikhs), the heads of the Morghania and other powerful religious sects, the nazirs or head sheikhs of the great Arab tribes, and sheikhs and notables from all parts of the country.

Although war had existed in Europe since August, martial law was not proclaimed by the Governor-General until formal notice appeared in the official *Sudan Gazette*, November 16, 1914. The powers exercisable under this proclamation were, however, intended to supplement, and not to supersede the civil Administration, the officials of which continued to exercise their usual functions, dealing with ordinary offences in the usual course. As a fact the Anglo-Egyptian Sudan has always been under martial law, in accordance with the terms of the agreements entered into between the British and the Egyptian Governments, dated January 19 and July 10, 1889, wherein it was provided that, until it should otherwise be determined by proclamation, the Sudan should be, and should remain, under martial law. So mild has been the rule, however, and so seldom have the powers conferred been exercised, that few of the population knew, nor, indeed, cared, that a state of martial law existed.

In December, as a punishment for his long-suspected disloyalty to the British Government, Abbas Hilmi was deposed from his position as Khedive of Egypt, and upon the proclamation of the new Sultan Hussein, imposing ceremonies were held in Khartoum, the Sirdar, as usual, taking an active part in the proceedings. Congratulatory telegrams passed between the Abdin Palace at Cairo and the Governor-General's Palace at Khartoum, the new Sultan "begging the Almighty to continue His divine favours for the sake of the prosperity and happiness of the popula-

tion of the territory confided to the Sirdar's authority." Thus the political year 1915 dawned with exceptional promise for the Sudan, a promise which seemed likely to be realised to an altogether remarkable degree. If the economic outlook offered rather less encouragement, there existed abundant causes for a condition which may be seen reflected in every part of the troubled world, and traceable to the devastating war which turned nearly the whole habitable globe into an armed camp. The Sudan could not have expected to alone remain immune.

With the expulsion of the troublesome and treacherous Ali Dinar from Darfur on May 22, 1916, the long-standing menace in that Sultanate ended.

The Anglo-Egyptian Sudan under British rule is increasing in wealth and purchasing power, and is a good developing field for business which enterprising British merchants and trading companies can occupy if they will adapt themselves to the conditions, customs, and requirements of the country, and establish depots in Khartoum and other principal trading centres. It is generally found profitable and advantageous for merchants to take native produce in exchange for European goods. The Sudan annually exports more than £5,000,000 value of raw materials, including gum arabic, hides, senna, cotton, cereals, etc. The superior quality of British goods is appreciated by the natives as well as by the foreign residents, and British manufacturers could secure the greater part of the Sudan business if they would but show as much foresight and enterprise as their foreign competitors have done. With the exception of Manchester cotton fabrics, genuine brands of British goods are generally more conspicuous by their absence than by their presence in most parts of the Sudan, whilst goods of German, Italian, and French manufacture are prominent in the shops, bazaars, and markets. The principal wholesale and retail merchants are mainly Greeks, Italians, Syrians, and Levantines. Native traders in the local bazaars and markets in their small way handle considerable quantities of imported goods. It is essential that manufacturers should send representatives who are

good linguists, and well qualified to study the tastes, needs, fancies, and prejudices of both the native and foreign residents, and generally be prepared to adapt their goods to the requirements of the Sudan. For the masses the most staple and popular commodities include ironmongery, white and dark-coloured cotton goods, and woollen blankets, but many luxuries in the way of fancy goods and rich fabrics are bought by the wealthy, who glory in fine raiment.

As in most Oriental countries, it is important that so far as possible all goods of high quality should bear prominently an effective and distinctive registered trade mark, which will definitely identify each brand as being the product of a certain firm or company. Very few can read or write, and almost invariably the natives identify the character, quality, and genuineness of goods by a pictured trade mark label. A "Camel," "Palm Tree," "Sword," or any *original* distinctive pictographic design, which will arrest attention and can easily be identified and remembered, may form a suitable mark. Every manufacturer should be watchful to detect and prevent forgeries of his trade marks.

In presenting the subjoined pages to the consideration of my readers, I would like to draw attention to the fact that, up till now, no attempt has been made to introduce or to adhere to a uniform mode of spelling Sudanese names. Not only does a certain amount of confusion exist among some foreign scribes, but even a few of the officials in the Sudan still adopt a method of orthography peculiarly their own. One not infrequently finds the name of a town spelled in various ways upon a railway bill, an official statement, and a map issued under Government auspices. Yet as far back as 1901 an earnest effort to correct these vagaries was made, a small pamphlet, entitled *Rules of Orthography for native names of places, persons, etc., in Egypt and the Sudan*, having been published from the War Office Printing Press in Cairo. Little attention seems, however, to have been devoted to this pamphlet, for one may still read "Sudan" and "Soudan"; "Khartoum" and "Khartum"—and even "Kartum"; "Sheik" and "Sheikh"; "Gebel" and "Jebel"; "Khor" and "Kor"; "Sudd" and "Sud," as

well as numerous other instances of variety in spelling the same words.

The confusion existing with regard to translations into English is, however, becoming less and less pronounced; more care is now evinced on the part of the home press which deals with Sudanese matters, and the anomaly therefore may disappear altogether. In arriving at a definite form of Sudanese spelling, the tone sound of the word as locally pronounced should be taken as a basis. One recognises the difficulty, however, especially for those who have had little opportunity of hearing the Egyptian and Sudanese words pronounced in the vernacular; the most, therefore, that one can hope to achieve is an approximation to the sound, which itself is subject to varying inflections and peculiarities of accent.

Broadly speaking, the rules laid down for the correct pronunciation of Sudanese names are :

- (a) That vowels are pronounced as in Italian and consonants as in English.
- (b) Every letter is pronounced, while no redundant letters are introduced.
- (c) When two vowels come together each one is similar, though the result, when the words are spoken quickly, is hardly to be distinguished from a single sound, as in *ai*, *au*, *ei*.
- (d) One accent only is used, the acute, to denote the syllable upon which stress is laid. This is very important, since the sounds of many names are entirely changed in significance by the misplacement of the stress.
- (e) Where the Arabic article occurs in a name it should be written *el*, no matter what letter follows it, and notwithstanding the fact that in certain cases it would be phonetically incorrect.

It may be added that these few rules are in accord with the system of orthography issued by the Royal Geographical Society of London, and such have been adopted in the spelling employed throughout this volume, as well as upon the map which accompanies it.

CHAPTER I

Geographical—Ethnological transformations—The correct spelling of "Sudan"—The French Sudan—The Italian Sudan—Danger to A.-E. Sudan if territory ceded—Belgian territory—Frontier delimitations—International (Anglo-French) agreement—Province of Darfur—Physical area—Rainfall—Early explorers—First impressions of Sudan scenery—Plains—Mountains—Rivers—Winds—Sand-storms—Oases—Sunrise—Sunset—Moonlight—Atmospheric effects.

IN endeavouring to arrive at some definite and accurate idea of the Sudan as it was and as it is, one needs the assistance of two atlases, one of the ancient world and the other of the modern. For what is now known as the "Sudan" is really a very ancient country, with a history going back into prehistoric times.

There exists no record of any great physical alteration having occurred in the geographical characteristics of the Sudan; rivers, mountains, and seas have, generally speaking, undergone no change since the convulsions of the world which preceded authentic history. The great transformation has been in the direction of the works of men, and in the men themselves. The first, in the form of towns and their building, are laboriously reared by one generation, ruthlessly swept away by another, and either partially restored by a third or left to the slow but sure devastations of time. The Sudan can show as many and as interesting examples of these latter as either mighty Babylon or splendid Sparta, and, like both of these ancient cities, it bears evidence of having possessed palaces once celebrated by the tongues of men, but of which not a vestige remains to-day. All we can rely upon is the fact that those once great cities preceded any period written of in the age of Homer or that of

Herodotus, and in comparison with which the edifices of Alexander and of the Roman Empire must have appeared insignificant.

And regarding the different races which have come and gone since the Sudan "was," who can hope to chronicle their numbers or to catalogue their names? Who can faithfully describe the different revolutions which have occurred in this mysterious country during the long centuries which have passed? What of the settlements of the various races, of their subjection to some other dominant nation, of their conquests and defeats, their civilisations and governments, of the succession of residence in towns and villages, of the nomad or roving state, and of the troglodytic condition of barbarians, some of whom are to be found living under almost exactly the same conditions in the Sudan of to-day?

The Sudan, meaning the "Country of the Blacks," and spelt variously "Soudan," "Seudan," and "Soodan," was a geographical term applied to the whole of that vast region of Central Africa which is bounded by the Sahara Desert on the north, and south by the Nile-Congo and the Congo-Chad water-partings, stretching from the Atlantic Ocean to the Red Sea, mainly between 4° and 18° N. There are the Anglo-Egyptian, the French, the Belgian, and the Italian Sudan, while pre-war German territory also has to be taken into consideration. It is, however, the more valuable part—the Central Sudan—which has come under British and Egyptian joint occupation, and this now includes what was formerly known as the three administrative divisions of Lagos—Northern and Southern Nigritia, the greater part of the old empire of Sokoto, and the ancient kingdom of Bornu.

The French Sudan comprises the northern districts of Damerghu and Kanem, as far to the east as Wadai and to the south-east as Baghirmi. To Germany had fallen the southern districts of Bornu (Logou, Mosgu), together with practically the whole of Adamawa, a territory formerly attached to Sokoto.

The "French Sudan" was the official designation used

until October 1899, when the territories were broken up into a number of conterminous colonies now known as Senegal, French Guinea, the Ivory Coast, Dahomey, and the military territories. Into these have since been absorbed a large number of ancient empires, kingdoms, and states, such as Marsina, Kaarta, Bambara and Kong, Massi, Gurma, Borgu, and the district of Timbuctoo. The total area is about 420,000 square miles, but no definite knowledge exists regarding the number of the population. All that is certain is that this is very dense, and probably exceeds 9,000,000.

The Italian Red Sea possessions consist mainly of the colony of Eritrea, including Dahlar Archipelago. If the post-war proposal to cede to Italy British territory adjoining Eritrea and Abyssinia is carried into effect, this would open up very grave dangers to the future of the Anglo-Egyptian Sudan, and be a serious menace and injury to British interests in the Near East.

Eritrea, literally "the Red Sea," which adjoins the Anglo-Egyptian Sudan, consists of a triangular portion of barren and sandy lowland between 12° and 18° N., containing, in all, a coastline along the Red Sea of about 700 miles, with a total area of 60,000 square miles and a population estimated at 280,000, of whom perhaps some 3000 are Europeans.

The Belgian territory in the Sudan was of considerable area and importance during the lifetime of King Leopold II. His late Majesty always cast covetous eyes upon this part of the world, as witness his enormous possessions in the adjacent Congo. In the early 'nineties the Bahr-el-Ghazal had been leased to the Congo Free State, but was occupied by the French in terms of the Franco-Congolese Agreement entered into on July 14, 1894. Then came the troops of the Sudan Government in 1900-1901, who retook possession, since when the province has remained under Anglo-Egyptian administration. The Lado Enclave, adjoining the Bahr-el-Ghazal, was likewise in the possession of the Belgians during the lifetime of King Leopold, by the Agreement of Brussels, May 12, 1906, but it reverted to the Anglo-Egyptian Sudan in December, 1909.●

The frontier delimitations arrived at, and the arrangement of the different "spheres" occupied by Great Britain, France, Italy, and Belgium in the Sudan, were not completed without local friction, attended by "incidents" which proved far-reaching in their effects. Both France and Belgium at one time nearly went to war with England. The tension between the two subscribers—to-day Allies—over the Fashoda incident, when Colonel Marchand, on July 10, 1898, occupied that advanced post on the Nile, only to surrender to Lord Kitchener on December 11 following, has now been completely forgotten; to facilitate oblivion the very name of the place has been changed, and it is now known as "Kodok."

In regard to the Belgian occupation of adjacent territory, the year 1905-1906 was fraught with considerable risk of an armed encounter between the Belgian troops, under Captain Channer, and the Anglo-Egyptian troops under Commandant Gibson. Fortunately the matter was eventually determined in June 1906 by diplomatic representations; since then delimitation commissions have settled outstanding questions between the Anglo-Egyptian Sudan provinces and those of the French and Belgian Congo. It is safe to conclude that no controversy can again arise between our permanent friends the Belgians and ourselves.

It is with the now compact, fast-ripening Anglo-Egyptian Sudan that this volume is mainly concerned. It deals with a country covering a territory of about 1,000,000 square miles, comprising swamps, desert, mighty rivers, fertile oases, and dense forests. Consequently it is one-half the size of undivided Russia, almost as big as Argentina, and larger than either Mexico or Peru.

The Anglo-Egyptian Sudan's frontiers to-day consist of Eritrea, Abyssinia, the French Congo, and Uganda.

Darfur was the last province to be incorporated.

For several years, that is to say from the commencement of the British occupation, the condition of things in Darfur had occasioned trouble, if not actual anxiety, to the Sudan Administration. The former Sultanate lay in the eastern Sudan, between the Libyan Desert, Wadai, Dar

Runga, Dar-Fertit, and Kordofan province. Modern Darfur (between N. lat. 10° and 16° , and E. long. 22° and $27^{\circ}30'$) is practically an enormous sandy plateau with a steppe-like aspect, although it contains many fertile valleys yielding wheat, cotton, sesame, and tobacco; cattle, however, constitute the greatest wealth of its people. The area is probably not less than 400 miles by 400 miles. The population of this territory is estimated at between 3 and 4 millions. The autochthonous inhabitants of Darfur are Fur, of mixed "negroid" stock. Other inhabitants of the country include numerous Arabicised tribes, both camel- and cattle-owners, and a liberal infusion of Fellats and kindred peoples from the western Sudan. In pre-Mahdist days the population was roughly estimated at about $1\frac{1}{2}$ millions.

Until the year 1874 Darfur was an independent state; in that year, however, it was conquered by the notorious slave-dealer Zobeir Pasha, while in 1884 it was reconquered by the Mahdi at the time that Sir Rudolf, Baron von Slatin, was its Egyptian Governor. Although within the limits of the Anglo-Egyptian Sudan, the government was an entirely independent one, being administered by the Sultan Ali Dinar, a grandson of the Sultan Mohammed whose family ruled in Darfur for 400 years, with all the old-time methods—not always of the mildest—of the Eastern potentate. In 1916, as the result of unprovoked hostilities directed against the British Administration, troops were sent against the Sultan. A quick and effective campaign resulted in his flight and subsequent death, and the passing of Darfur, as its fifteenth province, into the Anglo-Egyptian dominion.

Inasmuch as El Fasher—the capital of the Sultanate of Darfur—is situated at a distance of some 650 miles from Khartoum and not less than 400 miles from El Obeid, the nearest British Governor's post, it will be understood that considerable difficulty formerly existed in dealing with the dusky prince who ruled in Darfur.

The Anglo-Egyptian Sudan may be said to consist of two distinct physical areas—the dry, arid deserts located in

the north and west, and the moist or watered alluvial tracts in the south and south-east. To the first belongs all that territory comprising the whole of Lower Nubia, Kordofan, and Darfur, *i.e.* all the country upon both banks of the Nile, between Shellal, the Egyptian frontier, and Khartoum, together with the region beyond Khartoum and extending as far westward as Wadai. The second zone comprises Upper Nubia, Sennar, the Sobat and the Bahr-el-Ghazal basins, *i.e.* everything above Khartoum between the White Nile and Abyssinia, together with the whole of the region on both banks of the Upper Nile, from about the Sobat confluence to the Nile-Congo water-parting, and to the Uganda Protectorate, as well as southern Darfur and the Nuba Mountains province.

The northern zone has very little rainfall, the climate being almost identical with that found in Upper Egypt. The southern portion of the country, south of the Gezira, has an abundant precipitation of as much as 23 inches of rainfall during the year. Along the Red Sea littoral also the fall is considerable, and the atmosphere is consequently damp and clammy, while that of Khartoum, the Gezira, and the Berber districts is mostly extremely dry.

It is a remarkable physical phenomenon that the enormous tract of rainless country referred to should have been designed by nature to become, under certain conditions, one of the most fertile regions in the world.

The geographers of Europe, up to the latter part of the eighteenth century, paid but scant attention to the country known as the Sudan, including within that comprehensive application a great deal of territory which does not and never did belong to it, such as the Sahara from Senegambia to Sierra Leone on the west. Hitherto European knowledge of the Sudan had mainly been derived from Arabian geographers and Leo Africanus. Bruce (1768-73) explored Eastern Sudan and Abyssinia in search of the sources of the Nile, and discovered Lake Tana to be the true source of the Blue Nile. Houghton, who visited Western Sudan about 1790, enlightened us but little, for he was killed in 1791. Mungo Park, however, succeeded in crossing the north-

western portion of the country in 1796 and 1797, collecting much valuable information which has come down to us. We owe still more to the expedition under Denham and Clapperton; in 1822-24 they explored a large area of Central Sudan (between 6° and 17° E. long.), while Clapperton paid a second visit in 1826, including in his travels the south and south-west countries. Later, Richard Lander explored the valley of the river Quorara in 1830, having been preceded, however, in 1828 by Caillié, who traversed a large portion of south-western Sudan.

Although first impressions of the country, whether one enters it from the Egyptian side at Wadi Halfa or from the Red Sea at Port Sudan, are distinctly unfavourable from a scenic point of view, the wide, sandy and stony reaches of land conveying the idea that the whole place is a desert, a very different view is formed upon penetrating into the interior. Indeed, it is absolutely necessary to leave the beaten track and the railway if the traveller would learn something definite of the physical characteristics of the Sudan.

The greater part of that country consists of plain, and a considerable proportion of that plain is stone and what is known as cotton soil, which means that cotton can be grown upon it when irrigated. Thus it is not as useless as it looks, and as many uninformed people believe it to be.

There are, on the other hand, the hilly and even mountainous regions and the rich alluvial valleys or plains. The surface of this part of the country is extremely diversified, although the highest hills rise little more than 700 or 800 feet above their base, the general level of the country ranging between 1000 and 1200 feet above the sea.

Some of the plains are converted into swamps or temporary lakes during the rainy season, but few of these retain their water for the whole year. Of rivers there are a great number; but as these are usually flood-rivers, and, except at the full, flow in deeply-cut beds, they are only useful for irrigation by artificial means—that is to say, by the erection of *sakias* and *shadufs*, which contrivances

for raising river water will be found more fully described in the chapter upon "Irrigation."

First and foremost there is the incomparable Nile—the White and the Blue—with its several affluents, all of which, but more particularly the White Nile, form the very life-blood of the Sudan, as of Egypt. As this superb and stately stream comes down from the regions of the great Central African lakes it receives, during its course of 2029 miles from south to north, the waters of the Bahr-el-Ghazal, the Sobat, the Blue Nile, and the Atbara. The first-named tributary, itself a noble watercourse, comes out of the Abyssinian hills and brings down with it millions upon millions of tons of valuable fertilising earth, the waters commencing to rise about the month of May and reaching to full flood in July and August. The Sobat rises somewhat earlier, about April, receiving its supplies from the torrential rains which fall in the Abyssinian hills at that time of the year. The Blue Nile commences to swell at much about the same period, bringing its heavily charged waters to Khartoum towards the end of June, and reaching Halfa a month later.

Immediately following the rise of the Blue Nile the Atbara commences to swell, and its waters soon attain immense volume and strength, the full flood being gained about the end of August. The White Nile is the slowest of all the great waterways to increase in volume, the waters rising slowly but surely throughout the summer months, and reaching their zenith about the beginning of October; after this they begin to fall equally slowly. By the end of December nearly all of these rivers have lost their volume and speed, and in some cases, such as the Atbara, have practically disappeared. Some idea of the force with which the waters are brought down at full flow may be gathered when it is added that the flood, at its height, moves at the rate of nearly 100 miles a day.

The Setit becomes a very violent river during the rains, and the effect which its long-sustained ravages have had upon the part of the country through which it courses, may be judged from the fact that it has cut for itself a bed

100 feet below the level of the plains which undulate towards it from the north. These plains are covered with dense bush and many large trees, and the difficult descent to the river-bed is only observed at close quarters. The passage is very trying for camels heavily laden, the ground being much broken and the tracks of varying widths.

The Baraka is a most remarkable watercourse, rising in the high lands on the northern boundary of Abyssinia, and flowing nearly due north for a distance of about 200 miles, draining with its tributaries an area of some 25,000 square miles, and forming the greater portion of the northern section of the Italian province of Eritrea. It then passes into the Sudan after a further course of nearly 100 miles, spreading out into a deltaic fan which forms the coast plain as it approaches the Red Sea. It is in this equilateral triangle, about 40 miles on each side, that the town of Tokar stands, 55 miles south-east of Suakin.

To what extent the Nile controls the situation in the Sudan is shown by the extreme limits to which the river rises and falls upon occasions. Whereas in the season (December 1913-February 1914) both the Blue and the White Nile fell to a lower point than had ever been known in the history of the country, in 1908 the Blue Nile had swollen and risen to such a height that in the months of August and September it threatened more than once to inundate Khartoum itself. Several times during past years, on the other hand, the whole of the Government steamers were held up for days at a time by the lowness of the waters, only flat-bottomed *gyassas* and barges being able to pass the rocky and sandy bottoms of the rivers which were then exposed to view.

It is not difficult to understand the rapidity with which the rivers of the Sudan fill up and become empty. They are one and all dependent upon the rainfall over an immense surface of country, including the far-distant mountains of Abyssinia. This rainfall varies enormously, from the small annual mean of 4.91 at Suakin (mostly a winter rain) to 46.02 at Gambela (summer rain). Other districts which have heavy rainfalls are Wau, with 44.87; Mongalla, with

36.35; Kodok (formerly known as Fashoda), with 31.46; Singa, with 23.92; and El Obeid, with 17.00. Khartoum has a comparatively small precipitation, the mean being 5.87. July is the month during which the heaviest and most frequent falls take place, the average being 2.15 inches, as against 0.49 inches in August, 0.07 inches in September, and 0.3 inches in October. For the other eight months of the year no record is obtained. During the four rainy months—June to September—Khartoum endures a temperature ranging from a maximum of 114.8 degrees (Fahrenheit) to a minimum of 67.1 degrees. The prevailing wind is S.S.W., changing occasionally to W.S.W. and in October to N.N.E.; this latter prevails intermittently during the whole of November and December.

At most times of the year there are winds blowing, and even upon a perfectly calm day gentle zephyrs and puffs of wind are met with; in the heat of noonday they are found exceedingly grateful. At times, however, the wind becomes very rough. Boreas in his worst moods is encountered in the late autumn, blowing from all parts of the compass at the same time. The predominating air-currents are from east and south-east at that time of the year, but during the other months the north wind, varying from north-east to north-west, is very constant, except when the summer rains are falling; then the wind shifts to the south and south-east. On the Nile, when the wind is blowing from the north-east, it occasionally becomes so violent that the small native boats, such as the *gyassas*, cannot use their sails. Even the large steamboats plying on the White Nile find a difficulty in battling against the strong blast, and they rock on the disturbed surface of the water in a manner altogether disquieting to those who are inclined to sea-sickness.

On the other hand, in some parts of the Sudan during the summer, waves of superheated air are met with. These may well become a danger to travellers; in 1897 an entire convoy on the march from Korosko to Abu Hamed was destroyed by one of these winds.

The effect of the wind upon the sandy deserts is very

remarkable in certain places. The strong current of air, blowing^{*} prevalently north or north-west, rolls the sand along in clouds, the fine, powdery substance catching in the tamarisk and kitr bushes, in the roots and undergrowth of the date and dom palms, piling up high above the bushes, and reaching to the topmost branches of the palm-trees. The whole aspect presented is that of a violent storm having taken place ; many stately trees lie prone in every direction ; a few seedlings alone struggle upwards, only to meet the same fate in due course.

The worst natural visitations from which the Sudan suffers are undoubtedly dust and sand storms—*hababs*, as they are called. These storms may be seen approaching at a distance of several miles, and, when they blow, neither man nor beast can successfully stand up against them. The fine, powdery particles of sand, which feel as sharp and as penetrating as needle-points against the skin, fill the air for 50 or 60 miles around, rendering objects invisible at a distance of more than half-a-mile. Sometimes these blinding dust-storms will endure from nine o'clock in the morning to four or five o'clock in the afternoon, and so dark and dense becomes the atmosphere that travellers lose their way, and occasionally have been known to die on the road. Formerly troops on the march suffered terribly from these visitations ; besides the instance already given above of a convoy being lost through a superheated air-wave of a severe description, in the summer of 1891 a party of Egyptian cavalry were caught under similar circumstances, and met with some disastrous experiences, losing many men and horses. The districts of Tokar, Suakin, and the Red Sea littoral appear to suffer the most in this respect.

During certain months of the year, that is to say, when the hottest days are met with, small whirlwinds pass in great numbers, carrying the sand from the Bayuda desert, and quantities of fine débris picked up *en route*, in columns upwards of 150 feet in height ; these clouds have an appalling appearance, but they are really harmless. The worst damage that they can inflict is to blow down a few native tents or straw *tukls*.

In Khartoum, Atbara, and other towns, when the *hababs* blow, the inhabitants must perforce close all the doors and windows of their residences as tightly as possible. This is not very close either, for the doors and windows of Khartoum houses are not generally made to fit with any great accuracy. Even with this precaution, however, furniture, pictures, books, and clothing become thickly strewn with the fine, gritty sand; but it is a clean sand and can readily be got rid of. The shopkeepers, however, experience great trouble with their exposed goods, which become thickly shrouded with a coating of sand and *débris*, sometimes to a depth of half an inch.

The Sudan cannot be regarded as a mountainous country, the height and number of ranges being comparatively insignificant. It is for this reason that railway construction has been relatively easy and far from costly. On the other hand, there are numerous and high ranges of steep hills, some being of very curious formation, and composed of perfectly black rocks; others are separate conical-shaped rocks, absolutely bare of vegetation, while some again are tall cones, clothed with trees and shrubs to the very crown. The more important of the formations, called *jebels*, are named, and may be found marked upon the official maps; there are also others which are known only to the natives, and by them are recognised as landmarks but enjoying different names in various districts. Of the former, there are perhaps between 130 and 140 which are charted, one of the highest of them probably being Jebel Kassala, in the province of that name. This mountain stands 2600 feet above the town, which is another 1735 feet above sea-level, so that the mountain has a total elevation of 4335 feet. It serves as a landmark for some 70 miles around, and constitutes one of the most interesting geological formations to be found anywhere in Africa.

There are two particularly lofty mountains in the country south of the Sobat between the mountain Bahr-el-Jebel and the Abyssinian frontier. The more westerly peak is some 6000 feet in height, while the companion rocky mass to the south-east, sometimes called Mount, Naita and some-

times Etua, stands 7300 feet in height. One of the most interesting formations is Jebel Rejaf, at the extreme end of the Sudan's southernmost province—Mongalla—a pyramidal and solitary peak, from the summit of which a magnificent and uninterrupted view of the surrounding country is to be obtained. Range upon range of hills commence some few miles away, and these, although not lofty, form a striking outline of colour against the clear blue of the sky, and stand out in bold relief from the dense green foliage of the neighbouring forests.

In parts of the interior one comes across oases, sometimes located in or near the dry beds of rivers, and forming delightfully green and cool spots, in which the weary traveller delights to linger. Graceful palms grow there in abundance, while numerous flowering trees and shrubs, some of the former attaining to a great height, form a refuge for countless birds of gorgeous plumage, brilliantly coloured butterflies, and herds of monkeys. In the western desert of the Sudan is situated the oasis of Selima, 120 miles from Halfa and 78 miles south of Sheb; all caravans using the Arbain route must stop here for water, while the dates and salt which are found there are highly esteemed for their excellent quality. Sir James Currie, K.B.E., C.M.G., the former Director of Gordon College and head of the Educational Department of the Sudan Government, has given a description of this oasis, which he considers "a most beautiful place, but most difficult to find without a guide."

Grateful indeed are these fairy-like spots found by the traveller, native and foreign alike, in comparison with the greater part of the Sudan desert, which has been not inaptly described as "the most deserty desert in the world." But even the desert varies in physical characteristics, from hard, often stony, sand and blistering black rock, upon which nothing in nature can grow, to gravel-covered plains, dotted about with coarse reddish-coloured grasses and stunted salt bushes; somehow these seem to afford means of livelihood to millions of small birds of a dull brown colour, which can only be distinguished against the same tinted background when they are in flight. Then, again, there

are hundreds of miles of dull sand-dunes, broken up by ranges of low rocky hills of fantastic shape, and absolutely useless for any purpose of man or beast. It is but little wonder that the Arabs have a saying to the effect that "when God made the Sudan He laughed." Anything more forbidding, more ugly, or more forlorn than the wide-spreading, waterless deserts of the Sudan have I seen in no part of the world, not excepting even the melancholy nitrate plains of Chile or the dismal Karoo desert of Cape Colony.

The most attractive—perhaps one might say the *only* attractive—aspect of the Sudan desert is found in the early hours of sunrise and in the fleeting hour of sunset. Then, when the blinding glare is delayed or is departing, the various colourings upon the near hills and distant ranges of mountains become peculiarly fine. The aggravating mirage is absent, and there are only the softening shadows cast by the arriving or the departing sun to watch. Moonlight is infinitely more lovely and harmonious still, for then the ugliest stretches of sand and blackened rock become softened in the shadows, assuming romantic shapes and suggesting the possibilities of immense distances. Nowhere does Sirius, known to the Egyptians and the Sudanese as "Sothis," shine forth more refulgently than in the Nubian desert, poised at an altitude which seems quite distinct from that presented in any northern part of the world.

As one would expect in so pure and clear an atmosphere as that possessed by the Sudan, which, except for periodical sand-storms, has as yet been afflicted with no poisonous matter, some altogether wonderful moonlight effects are visible upon most nights of the year. In no other land, indeed, have I seen a more perfect lunar light; when this illumines the boundless plains, prosaic enough in reality, and brings into strong relief the few (and in the daylight colourless) brushwood and stone outcrops, the softening effect is such as to cause them to appear almost like fairy creations, set in a brilliant framework of shimmering silver. So splendid is the light emanating from the moon, that all ordinary occupations, including the reading of a newspaper, may be pursued without difficulty. At certain seasons (in

December, for instance) the moon's silver effulgence does not perceptibly pale before the sun has commenced to flood the landscape in golden light, and the curious effect of the western sky still displaying moonlight shadows while the sun's first rays faintly illumine the eastern horizon, may be witnessed. The combined effect is as wonderful as it is beautiful, and, I should imagine, quite as rare.

The Sudan has contrived to earn a reputation for displaying magnificent sunrises and sunsets; but while in no way desiring to rob the country of this not inconsiderable asset among other numerous attractions, I venture to believe that nothing in nature's spectacular Sudan displays exceeds the beauty of such places as South and Central America, Mexico, the West Indies, the Far East, or even the banks of the Egyptian Nile. In the rainy season, when the sky is piled up with heavy banks of clouds, the Sudan may compare more favourably; but my experience does not confirm the high eulogium conferred upon Sudanese ethereal effects.

CHAPTER II

Early Egyptian rule—Mohammed Ali—Ismail Pasha—Expeditions—Hicks Pasha—Deplorable conditions in the Sudan under Egyptian rule—Rise of the Mahdi—His iron administration—Gordon's first mission—His mild policy—Romolo Gessi—Obstruction by Egyptian officials—British intervention—Lord Dufferin's disclaimer—Nubar Pasha—Sir Evelyn Baring (Lord Cromer)—His services to Egypt—British Government's policy in the Sudan—Appointment of Gordon determined upon

UP to the year 1898, which witnessed at once the final rescue of the Sudan from the thralldom of the Mahdist regime and its emancipation from the blighting savage rule of Egypt, the history of the country had been a thoroughly wretched one, fully realising Voltaire's dictum, "History is little else than a picture of human crimes and misfortunes."

In 1805 the ruling Pasha of Egypt, one Mohammed Ali, invaded Nubia in pursuit of a number of Mamelukes who had been hunted out of Egypt by their relentless enemy and had sought refuge in Nubia. The Pasha's elder son, Ibrahim Bey, took up the chase; he succeeded in not alone exterminating the remnant of the Mamelukes but in subduing the most powerful of the Sudanese tribes, the Shaigias, who finally became Egyptian vassals and so-called "adherents."

Flushed with his first success, Mohammed Ali determined to become complete master of the Sudan, and in 1820 he sent an expedition of 10,000 men under Turkish officers, equipped with twelve pieces of cannon, to bring the whole of the different Nilotic tribes to subjection. The task was rendered the more easy and expeditious by reason of the enmity and conflict existing among the various tribes. United they might have successfully resisted the Turks

almost indefinitely ; divided as they were among themselves, they fell one by one before the invader.

The Egyptian troops formed a mixed lot, comprising Turks, Albanians, Maghrabis, Bedouin horsemen, and Ababda Arabs. Both Waddington and Hanbury as well as Caillaud, among other historians, have provided a full and accurate account of the invasion by Ismail Pasha, the younger son of Mohammed Ali, who had been given the command by his father, and it is only necessary therefore to add that the second expedition proved equally successful ; the Sudan became an Egyptian province, and remained so until the rising of the Mahdi in 1882, the fall of Khartoum taking place three years later.

While success had attended the arms of the Khedive, misfortune—perhaps it was Nemesis—overtook his son Ismail, who, by an act of treachery, or perhaps retribution, was burned to death at Shendi, in 1822, by an Arab sheikh named Nimr.

Yet another Ismail—the then Khedive of Egypt, and a son of Ibrahim Pasha—likewise cherished ambitions of “settling” and tapping the Sudan as an additional source of wealth. He sent there an expedition in 1869, and constructed the first line of railway ever attempted in that then savage country, deeming it to be one of the best means of realising his dreams of wealth. Ismail’s compulsory abdication, however, in 1879, at the command of his suzerain the Sultan of Turkey, put an end at once to him and all his projects.

Subsequent Sudan expeditions were purely punitive, being despatched from Egypt under native as well as British officers—Raouf Pasha, Rashid Pasha, Colonel W. Hicks, General Charles George Gordon, and Baker Pasha, while in 1884, and again in 1897, the assistance of British troops was requisitioned. Among other distinguished soldiers who participated in the first and later expeditions were Sir Herbert Stewart, Sir Charles Wilson, General Earle, General Graham, General McNeill, General Sir F. Stephenson, General Sir Francis (now Lord) Grenfell, Colonel (afterwards Earl) Kitchener, Sir Redvers V. Buller, Sir Charles Warren,

Colonel (now Sir C.) Hotted Smith, General (afterwards Field-Marshal) Sir Evelyn Wood, and Colonel (now Général Sir F. Reginald) Wingate. A long and imposing list of names truly, including some of our best fighting men—names which have gone down into history crowned with the laurels of distinction in the field.

It must not be supposed that the inhabitants of the Sudan of the pre-Mahdi days were found living in a kind of African Utopia, or that the religious Dongolawi fanatic had suddenly appeared among them in 1881 as a firebrand only to disturb a hitherto peaceful existence.

The deplorable conditions which prevailed in the Sudan when the Egyptians were still in possession, that is to say, before they were compelled by their allies the British to maintain a good government, are portrayed by Sir Samuel Baker in his well-known book *Ismailia*, published in 1879.

"Here we have an average picture of Sudan rule," he writes. "In a country blessed with the most productive soil and favourable climate, with a population estimated at above a million, the only step towards improvement, after seven years of possession, is a system of plunder and massacre. Instead of peace, a series of intrigues have thrown the country into hopeless anarchy. With good government, this fertile land might produce enormous wealth in the cultivation of corn and cotton." This prophecy has since been abundantly verified.

Again the same writer observes: "A country that was in no way connected with Egypt, and over which Egypt had no more authority than England has over China, has actually been leased out to adventurers of the class known at Khartoum, but thoroughly well known to the authorities as slave-hunters."

As to the effect of Egyptian government in the interior—as far south as Gondokoro, indeed—Sir Samuel declared: "The country is sadly changed; formerly pretty native villages in great numbers were dotted over the landscape, beneath shady clumps of trees, and the land was thickly populated. Now all is desolate; not a village exists on the mainland; they have all been destroyed, and the inhabitants

have been driven for refuge on the numerous lone islands of the river."

Let us remember that all this was the desolating work of the Egyptian rulers of the Sudan, and it is a strange commentary upon British policy that British bayonets should ever have been allowed to assist in keeping a Khedive in sole possession for a single day longer!

For many years the people of the Sudan had been groaning under the tyranny of Egypt, just as other small nations—the Serbs, the Bulgars, the Albanians, and the Greeks—had before the war been writhing beneath the heel of the hated Turk in Europe. No one will ever know—because no one will now ever care to inquire—how great had been the tyranny and oppression which the long succession of Egyptian rulers had brought to bear upon the unhappy people of the Sudan; the grievances, however, were sufficient to induce the victims to enrol themselves as accessories to any and every attempted rebellion against the Turk and his detested authority. Thus it was that Mohammed Ahmed, the Dongola boat-builder's son, found the persecuted and misruled people not only willing but anxious in the extreme to join him when, in 1881, he raised the standard of revolt upon Abba Island.

The Sudanese, in their ignorance, and actuated by their long-pent-up indignation, doubtless imagined that whatever resulted from their participation in the rebellion against existing authority and exactions, their lot could not in the end prove worse than it had been for so long a period under the Turk. They were soon, however, to be undeceived, for if the Ottoman had chastised them with whips the Mahdi chastised them with scorpions. But the worst of all experiences were undoubtedly those gained under the Mahdi's successor—Abdullahi bin Sayd Mohammed, of the Taaisha section of the Baggara (cattle-owning) tribe of south-western Darfur—the Khalifa. His long-sustained reign of tyranny proved fiendish in character. By the time that they made this discouraging discovery, however, it was too late for the people to withdraw from their unfortunate alliance.

At first everything seemed to go well with their cause, and it looked as if the detested Turk, their old and inveterate enemy, were to be swept bag and baggage from the country which he had done nothing to advance and everything to depress and destroy.

The defeat of the Egyptian Government troops in July of the year 1881, followed by another which proved even more disastrous to their prestige in the following December, were succeeded by the massacre of the combined forces sent against the Dervishes—those of Abd-Allah and Yusef Pasha—in June 1882; subsequently the Mahdi and his now greatly increased followers gained victories over a gallant and well-known British officer, Colonel W. Hicks, who with his 10,000 troops, mainly composed, it is true, of ill-disciplined and rebellious Egyptians, were completely cut to pieces and left to rot where they lay in the forest country between Lake Rahad and El Obeid. After this great triumph the Mahdi became virtual ruler of the Sudan, and for the next sixteen years the unhappy people trembled, and perished by tens of thousands, under his and his successor's terrible rule.

In 1874 General Gordon had proceeded to the Sudan at the request of the Khedive of Egypt, and arrived at Khartoum on March 13 of that year. The troops accompanying him, however, numbered but 200 in all. The telegram from Khartoum announcing the arrival of the expedition, brief and prosaic as it was, appeared almost like a page from the *Arabian Nights*. Gordon's proclamation had preceded him, and immediately upon his arrival he summoned the officials, thus preparing the people for some salutary changes. He at once held a levee at the Mudiria (Governor's official residence), the entire population, even the poorest Arab, being admitted. On his way between the Mudiria and the palace about a thousand persons pressed forward kissing his hands and feet, and calling him "Sultan," "Father," and "Saviour of Khartoum." General Gordon and Colonel Stewart then opened offices in the palace, giving admittance and a careful hearing to every one with a grievance. The late Government's books, recording from time immemorial the

outstanding debts of the overtaxed people, were publicly burnt in front of the palace. The kourbashes, whips, and implements for administering the bastinado from Government House were all placed in one blazing pile. Thus perished all evidences of debt and the emblems of oppression together.

In the afternoon of the same memorable day General Gordon created a council of the local notables—all Arabs. Then he visited the hospital and arsenal. With Colonel Stewart, Coetlogen Pasha, and the English Consul, he visited the prison, which he found to be a dreadful den of misery. Two hundred unhappy wretches loaded with chains lay there. They were of all ages, boys and old men, some having been tried, some having been proved innocent but forgotten for months, some arrested on suspicion and detained there more than three years, many merely prisoners of war, and one, a woman, who had spent fifteen years in prison for a crime which she had committed when still but a girl. General Gordon at once abolished this bastille. All the prisoners were briefly examined, and if it was found advisable they were set at liberty. Before it was dark, scores of once miserable now happy creatures had had their chains struck off, and on the following day Colonel Stewart continued this beneficent work. At night the town was in a blaze of illumination, the bazaar being hung with cloth and coloured lamps, and private houses decorated. There was even a display of fireworks by the negro population, who indulged in great rejoicings till midnight.

It was mainly with a view to put down the horrors—firstly, those of the Egyptian rule, and then those of the Mahdi—that General Gordon accepted the task of governing the Sudan. The story of his life during the five years that he spent fighting almost single-handed against the thousands of slave-dealers who were depopulating Central Africa, has been told in his own simple and graphic language. It forms probably the most melancholy history that has ever been penned. Most mournful of all perhaps is it to read: "I returned with the sad conviction that no good could be done in those parts, and it would have been better if no expedition had been sent."

Nevertheless the brave Gordon stood loyally to his post, aided by men of his own disposition and selection, such as Romolo Gessi, the Italian who acted as his lieutenant. In February 1881, a few months before his lamented death, this same Gessi wrote to Gordon as follows: "I had turned the country of the Bahr-el-Ghazal into a garden. The people were all with me, and so I had been able to discharge a number of my soldiers. My strength lay, not in brutal force, but in the love of the chieftains and their followers. From all sides ivory, caoutchouc (rubber), and other products were brought in, and a just government had done what seven-and-twenty thousand muskets had never been able to do—it had increased the revenue by tenfold."

But this bright picture was soon to be spoiled. Raouf Pasha, Gordon's successor, made Gessi's position intolerable. He cut off two years' pay due to his soldiers and all the Government servants in that province, and by another stroke of the pen he reduced Gessi's power and the extent of his territory. Nothing was left for the latter but to retire, and in a fatal hour he embarked in the wretched steamer which the Governor had had sent up. He was caught as in a trap by the grassy barrier of the Nile called the "sudd," and here he was shut up with about six hundred followers as in a living grave. Of this number only one hundred "skeletons" were rescued and brought to Khartoum; and the brave hunter of slave-hunters having shortly afterwards disappeared for ever from the scene, anarchy, bloodshed, and unspeakable cruelties once more desolated the provinces of the Sudan.

It seemed, indeed, a long, long time to elapse between the completed triumph of the Mahdi in 1883 and the arrival of a sufficiently powerful punitive force in 1898. It was not characteristic of British administration of those days to submit to the most flagrant defiances for so long a period; but divided counsels at home and other necessary and important matters abroad accounted for this dilatory policy upon the part of the British Government, of which Lord Salisbury was then Premier.

Lord Dufferin, upon whose matured judgment Mr.

Gladstone and his Cabinet had so greatly relied for advice in 1880-85, also thought little about the Sudan, and the deaths of Colonel Hicks and his brave companions seem to have made but little impression upon that diplomat, even if they horrified and shocked the warmer-hearted British public. Lord Dufferin, writing of the Hicks expedition, which started from Cairo to Khartoum on February 1, 1883, declared that "it was undertaken upon his own responsibility, and that neither he (Lord Dufferin) nor the British Agent (Sir Edward Malet) was concerned in it."

Nevertheless Colonel Hicks had been appointed, after a distinguished career in India, to be head of the army in the Sudan, and his expedition was far from being the filibustering or adventurous undertaking that Lord Dufferin attempted to represent it. But such was the wretched spirit in which Sudanese and other imperial matters were regarded in political England of those days; small wonder that this pusillanimous counsel and official ineptitude becoming known to the Mahdi—and little seems to have remained unknown to that astute brain through the medium of his intelligence department—he should have felt greatly encouraged, and should have become quite dauntless in furthering his crusade against the Turk and the Turk's supporters, the British.

We even find that great pro-consul Sir Evelyn Baring (later Earl Cromer) lending the full weight of his powerful influence to withdrawal from the Sudan, at the time that the Egyptian Prime Minister, Sharif Pasha, was doing his best to retain it and endeavouring to borrow 10,000 soldiers from Turkey for the purpose.

The late Lord Cromer dealt both fully and convincingly with this and other equally controversial questions in his book *Modern Egypt*, published in 1908, and to the two substantial volumes the historical student may be confidently referred. On the other hand, he should not neglect to devote his careful attention to the opinions of Mr. Demetrius C. Boulger, whose work entitled *The Life of General Gordon*, published first in 1896, contains many searching criticisms of both facts and of men who were concerned in the conduct of affairs at the period referred to.

Sir Evelyn Baring prevailed, and eventually the British Government, on January 4, 1884, ordered the retirement of the Egyptian troops to Wadi Halfa, thus further strengthening the hands of the Mahdi and his now insolently victorious Dervishes.

Sharif Pasha resigned, and his legitimate successor, Riaz Pasha, refused to accept office rather than consent to the abandonment of the Sudan. A complaisant successor, however, was found in Nubar Pasha, who, besides being an Armenian, was likewise an opportunist. He became Prime Minister of Egypt; the troops were withdrawn, and the Sudan left to become the helpless prey of the motley horde of Arab fiends who had seized upon it.

If Sir Evelyn Baring had suggested withdrawal from the Sudan, he at least was not a party to the sending out of General Charles Gordon to arrange for the future settlement of the country. That the despatch of some competent official was deemed to be necessary was pointed out by the British Agent at Cairo in a note addressed to Lord Granville in December 1883; but the choice of "Chinese" Gordon—as the author of *Modern Egypt* himself tells us—far from being his, was at first disapproved of by him.

Dating from the time that he had been the British Commissioner of the Caisse de la Dette, Cromer had played an important part in the affairs of Egypt up to the period when he returned to that country in 1883 from his sojourn in India, where he had been Finance Minister. His appointment as British Consul-General in Egypt naturally gave him his great opportunity, and from that time forward he proved himself a thoroughly capable financial adviser. In fact, he occupied a position of responsibility and power which no British Consul had ever held previously. To his sound judgment and high statesmanship may be attributed the rescue of Egypt from a state of insolvency and so rendered capable of paying the interest upon her enormous debt out of her own resources.

When affairs in the Sudan had assumed so serious an aspect that they could not possibly become worse; when the Mahdi's victorious forces, having routed Raouf Pasha,

Said Pasha, and Colonel Hicks, one after the other, had as a consequence of these successes obtained complete control of the Sudan, then, and then only, did the British Government determine to call upon General Gordon.

As a fact, all through his long and brilliant service in China, in South Africa, in Egypt, and in the Sudan, Charles George Gordon never once asked to be sent anywhere ; on the other hand, more than once he refused the most tempting offers made to him, such for instance as that in April, 1880, of the command of the Colonial Forces in Cape Colony, at a salary of £1500 a year. When, two years later, he accepted almost an identical position, at the reduced salary of £1200 (he had asked for no more than £700), it was again by direct request of the Cape Government, preferred through the Governor of the colony, Sir Hercules Robinson (who afterwards became Lord Rosmead).

By the end of his first year's tenure of the post of Governor-General of the Sudan, Gordon had effected numerous administrative improvements ; but the magnitude of the task still before him must have appeared insuperable. During these twelve months he had ridden nearly 4000 miles on camels ; he had visited some of the remotest parts of the country ; he had settled innumerable tribal and other disputes, and had the whole people at his feet as devoted adherents. Then he was called to Egypt by the Khedive, whose financial affairs had fallen into a condition of chaos. Gordon, apparently, was expected to set them right. He failed therein ; and in regard to past services he met with the usual display of ingratitude at the hands of Eastern potentates. Finally he quitted Egypt (1879), only to return four years later to the Sudan, which country he was destined never again to leave.

CHAPTER III

Arabi rebellion in Egypt—Effect upon the Sudan—British Government policy—Position of the Khedive—Disaster to the Italians—Growing power of the Mahdi—Despatch of Kitchener—His strong control—Niggardly equipment—Battle of the Atbara—Mahdi's power broken—Battle of Omdurman—Enemy's heavy losses—Escape of the Khalifa—His death—Extreme poverty of the people—General conditions of the Sudan in 1889-90.

As a direct result of the rebellion of Arabi Pasha, the Egyptian "patriot" and Commander-in-Chief of the Khedival army, in the spring of 1882, and the setting alight of Egypt and the Sudan, no fewer than eight different British campaigns became necessary in these countries, the trouble only ceasing with the death of the Khalifa Abdullahi-el-Taaisha in 1899. The Darfur campaign was in no way connected with political troubles.

Any one of the campaigns might have proved successful had the British Government of the day known their own mind, and had they but had the pluck to strike when once the arm had been uplifted.

So far was this from proving the case, however, that when Gordon—who himself realised too late the serious nature of the Mahdi's uprising—begged for sufficient troops to quell the trouble once and for all, the reply was a niggardly one, the troops sent being wholly incapable of dealing with the situation. It was not until 1896, after the Mahdi and Khalifa had been for over fifteen long and terrible years in virtual possession of the whole country—when by their abominable cruelties they had succeeded in reducing its once thriving population by no less than 75 per cent—that it was determined to take effective steps to put an end to an intolerable condition of things.

Speaking in the House of Commons as Under-Secretary for Foreign Affairs, Mr. Curzon—now Earl Curzon of Kedleston—declared that: "In view of the reported movements in various directions of the Dervishes and the threatened beleaguering of Kassala, Her Majesty's Government, acting in conjunction with the Government of His Highness the Khedive, and in order to avoid danger to Italy and to Great Britain, and in the general interests of Europe, had ordered an advance upon Akasheh and possibly to Dongola." He added: "The future policy of the Government must be regulated by considerations not merely military and strategical, but political and financial."

There can be no question that the disastrous defeat sustained by the Italians at Adowa (Abyssinia) on February 20, 1896, when General Oreste Baratieri's splendid army was almost decimated, hastened the decision of the British Government. The friendliness of the Italian troops towards the Anglo-Egyptian expedition and those who composed it, and the valuable assistance which they rendered at Kassala and elsewhere, proved sufficiently that they esteemed the services of the British at their full value.

Sir Michael Hicks-Beach (afterwards Lord St. Aldwyn) had also some rhetorical utterances to pronounce upon the "duties"—long deferred though they were—of the British Government in regard to the Sudan. In a speech delivered in the House of Commons (February 5, 1897) the then Chancellor of the Exchequer declared that "this country solely, deliberately, and I think unwittingly compelled the Egyptian Government to abandon the Sudan. Our people were told at the time by Mr. Gladstone and others, who, I have no doubt, believed it, that it was a right and proper thing to relieve the inhabitants of the Sudan, who were rightly struggling to be free from the tyranny of the Egyptian Government. But what do we see now? From the reports of those who have been so unfortunate as to be prisoners of the Khalifa; from the condition to which the once fertile province of Dongola has been reduced under that Government; from the delight of the population at welcoming back the Egyptian Government, who were supposed to

appear to them in the light of tyrants, we may be quite sure that there never was a case in any part of the world in which an unfortunate and helpless population groaned under a more ruthless, more barbarous, and more fanatical tyranny than the peaceful inhabitants of the Sudan under the rule of Khalifa." In those days such an abomination as a Bolshevik "Government" had not been heard—not even dreamed—of.

It had taken the British Government ten years to become quite sure about their duty, although, had they been as well informed as they were deplorably and callously ignorant, they might readily have ascertained the facts without entertaining any doubt whatever, and have taken steps which would have rescued from at least a great part of their troubles the "unfortunate and helpless population" whom, at the eleventh hour, they expressed so solemn a desire to protect, and only after fully three-fourths of their number had already been obliterated.

The timid policy of the Conservative Government of that day in dealing with the Sudan was later on matched with almost identical repetition by a Liberal Government (in Somaliland). What happened to the friendly Jaalins in 1896 at the hands of the Khalifa was endured by the equally friendly and implicitly trusting tribes in Somaliland at the hands of Mohammed Abdullah, the Mullah, in 1913. It has found a further parallel in Mr. Lloyd George's callous indifference to the agony of the Russians under the fiendish rule of a Lenin and a Trotsky. Thus does history repeat itself!

Fortunately the 1896 punitive expedition was placed under the command of a soldier who would stand no nonsense from any one—be that individual the Commander-in-Chief of the British Army or the Prime Minister of England. Rather than submit to the restrictions and restraints imposed upon his predecessors commanding in previous campaigns, Kitchener would have resigned his commission—and rightly so. He knew what to do, and the British Government did not. Their one saving grace was permitting him to carry out the campaign as he deemed best, without any further attempt at interference.

One of Kitchener's first endeavours was to correct the mistakes which had been made in 1884-85, mistakes mainly attributable to the Ministry at home. One of these—perhaps among the more serious—was the refusal to sanction the construction of a military railroad between Wadi Halfa and Abu Hamed, a long run of 230 miles through the desert, the bare mention of which undertaking had frightened the gentlemen at Downing Street. The Suakin-Berber railway had been taken in hand during the Suakin Expedition in the spring of 1885, but only a few miles were laid, and then abandoned. There exists, it is understood, amongst the private papers of General Stephenson, who then commanded the British forces in Egypt, abundant proof that the British Government were made fully acquainted with the beneficial effects which would result from the construction of this military line. Had the scheme been adopted—and who could better judge of its expediency than the trusted man on the spot?—neither Gordon nor his brave comrades need have been sacrificed. A miserable spirit of parsimony, accompanied by a dense ignorance upon the part of Ministers, was greatly responsible for the tragedy which ensued, and the names of William Ewart Gladstone, Lord Granville, and Lord Derby will, in the judgment of many, always bear the stigma of responsibility.

Kitchener determined that no false ideas of economy should affect the success of his command. While he applied *pro forma* for permission to build his desert railroad, he had fully resolved to construct it in *any case*. And construct it he did. The Wadi Halfa-Abu Hamed Railway ranks among the most expeditiously built and equipped and most useful railway lines that the world has known.

Neither was it in any sense due to the foresight and diligence of the British War Office and the permanent staff of officials that the Sudan campaign of 1897-98 turned out as brilliantly successful as it did. In the full flush of victory, and in view of the sheaves of congratulatory telegrams which passed and repassed at home between the late Queen Victoria, the Marquis of Salisbury, Mr. Arthur J. Balfour, and the Marquis of Lansdowne on the one side, and between

the Sirdar and his officials in the Sudan on the other, the many delinquencies of which the War Department had been guilty were either overlooked or forgiven. Not so, however, by the unfortunate rank and file among the British troops, most of whom, owing to the paucity and poverty of the rations provided for them by the contractors employed at the War Office, had almost beggared themselves or incurred debts, many of which could not be paid.

The decisive battle of the Atbara, which broke the backbone of Mahdism, was fought between the Dervish hordes of Mahmoud Abu Ahmed with his picked warriors, and the British and Egyptian troops under the Sirdar, Kitchener. Since so much depended upon the issue of this contest, and the moral effect of it must prove immense, the British Commander-in-Chief took infinite pains to perfect his plans beforehand, leaving absolutely nothing to chance. Whereas the combined Anglo-Egyptian forces were actually in training for the inevitable battle as early as December 1897, when Major-General Hunter had petitioned for further troops, it was not until the first days of April 1898 that the struggle was actually entered upon. And, as mentioned, it proved determinate.

The famous battle has been so often and so fully described that there is no necessity to do more here than record the fact that the followers of Mahmoud were said by that individual himself to number 20,000 foot and 14,000 cavalry, while the combined opposing forces numbered 20,000 men.

The results of the battle at the Atbara were the loss (officially computed) of 3000 Dervishes killed and an enormous number (unspecified) wounded, besides the capture of many hundreds of banners, war drums, rifles, and 10 guns. The British losses included the deaths of three distinguished officers—Captains Urquhart and Findlay, both of the Cameron Highlanders, and Second-Lieutenant Gore of the Seaforth Highlanders—with 22 non-commissioned officers and men killed, 10 officers and 82 non-commissioned officers and men wounded. In the Egyptian army the losses amounted to 57 non-commissioned officers and men killed,

and 5 British and 16 native officers and 365 non-commissioned officers and men wounded.

After the Atbara came Omdurman, which, if a less brilliant, was admittedly a yet more conclusive battle. This encounter has been described as having called for more generalship if for less fighting, and assuredly the actual Anglo-Egyptian death-rate was infinitely lighter. Whereas, as has been shown, at the Atbara the Dervishes lost 3000 killed and many more wounded, while the Anglo-Egyptian losses amounted to some 574 killed and wounded, at Omdurman the Khalifa's forces—numbering between 40,000 and 50,000 men—were practically annihilated, the dead amounting to 11,000 and the wounded to 16,000, while the prisoners taken numbered over 4000.

On the other hand, the Anglo-Egyptian casualties were returned officially at the extraordinarily small total of 387 ! Even allowing for several subsequent deaths from wounds and fever which supervened, these losses did not exceed 400, or actually nearly 200 less than at the Atbara, notwithstanding the increased numbers of the forces engaged on both sides.

The most disappointing feature of Omdurman battle was the escape of the Khalifa. The calamity was deplored by "Mr. Thomas Atkins," whose quaint observation upon the news becoming known has been recorded :

"Nice, ain't it ? " he queried angrily of a comrade.—"What's nice, eh ?"—"Why, they've been and let that there *Kheed-i-i-ve* get away after all ! "

With Omdurman once more in the hands of the victorious allied troops, and the Khalifa, accompanied by Sheikh-ed-Din, in full flight, there remained but one further triumph for the Sirdar to achieve—the winning back of Khartoum, which for thirteen years had been in the hands of the savage Mahdists. This was accomplished on September 2, 1898, while the Khalifa was pursued and killed by Sir F. Reginald Wingate on November 24 in the year following (1899).

The serious part of the campaign was then over, and the gradual pacification of the distraught country was to

commence. The wretched conditions of the people at the time of the British occupation, and the hideous straits to which they were reduced in order to obtain food, are almost beyond belief. The native camelry were followed for miles upon the road by starving women and little children who scrambled for the excreta dropped by the animals! This was collected in baskets, and, having been dried in the sun, was crushed into a powder, from which the undigested portion of the grain (*dura*) was separated and ravenously eaten.

A British officer who had often witnessed this incident described it to me as having occurred, among other places, at Omdurman immediately after the fall of Khartoum, and again at El Obeid and other parts of the province of Kordofan, laid waste by the Dervishes and the inhabitants left to starve. Some of them just managed to keep body and soul together by eating the gum which they collected, together with fine grass seeds which were still to be found among the down-trodden crops lying upon the ground.

These terrible conditions prevailed for several months after the death of the Khalifa, and before the arrangements which the Army of Occupation were gallantly making for the relief of his numerous victims could be put into full operation.

CHAPTER IV

The Anglo-Egyptian Administration—Gordon's pessimism—Administrative reforms—Early promises redeemed—The people's gains—Emancipation from Egyptian control—Area of the administered Sudan—Convention of 1899—Governors-General—*Personnel* of the Administration—Permanent Boards—Changes in scope and character of the Government—The Civil Service—Selection of candidates—Rules and regulations—Process of exclusion—Examinations—Arabic acquirements—Allowances and grants—Restrictions and deductions—Popularity and advantages of the Sudan Civil Service.

GORDON once described the Sudan as "one of those countries which are to some degree civilised, and which if properly governed are quiet and orderly."

It is true that at a somewhat later date he denounced the whole Sudan as "a useless possession," and declared that "we could not govern it, neither can Egypt"; but his earlier impressions would appear to have been the more dependable, for now, after some twenty years of sound and honest administration, we find the country, almost throughout its entire length, enjoying political peace and material prosperity unexampled in varied experience of alien rule. Lord Rosebery has told us that "the British Empire is the greatest secular agency for good known in the world," and to realise the justice of this statement one has but to glance at the condition of Egypt to-day, in spite of the occasional unrest which exists there; what had been accomplished in Egypt in thirty years was exceeded in the Sudan in one half of that time. This remarkable transformation, moreover, has come about without *réclame*, without noise, almost without remark; the channel along which the course of events may best be traced is that of the official Blue Books, and few people ever trouble to read these.

The secret of the success achieved by the Sudan Administration may be found in the strict application of Lord Cromer's policy, declared at the time that the country passed under joint British and Egyptian control. Addressing an Assembly of Sudanese Sheikhs and Notables at Omdurman on January 5, 1899, Lord Cromer, then British Agent in Egypt, said: "No attempt will be made to govern your country from Cairo, still less from London. You must look to the Sirdar alone for justice and good government; and I do not doubt that you will have no cause for disappointment."

This expression has been abundantly justified, for it would be difficult to find a people more contented with their government than the Sudanese to-day; they have found their new rulers animated by a spirit of justice and moderation entirely different from anything of the kind experienced by their people in former times. Whatever qualms or misgivings they—a Mohammedan race—may have felt upon passing under the control of Christian rulers were dispelled by Lord Cromer's further assurance: "There will be no interference whatever in your religion." There has been none; neither has the dreaded religious question—sensitive and excitable though the people are—as yet occasioned any feelings of disappointment to Moslem subjects or any great anxiety to their Christian governors.

At the outset the Sudanese were given clearly to understand the kind of government they were to expect. They were told that they might depend upon equal justice being dispensed to all alike—the rich and the poor, the highly placed and the lowly. They would all alike have to pay taxes, but it was promised that these should be moderate in amount and fixed according to ancient custom, which is very similar in all Moslem countries. Once these amounts had been met the taxpayers might feel absolutely assured that no further irregular exactions would be made. This, in itself, was an experience hitherto unknown in the Sudan.

But the people were warned that the new Government did not intend to pamper or to do everything for them:

"You must bestir yourselves," they were told. "You must resume the cultivation of your fields, which can now be carried on without fear of molestation." How well this advice has been taken to heart on the one hand, and how consistently the promises of protection held forth have been carried out on the other, may be realised by glancing at the condition of prosperity which prevails generally throughout the country after twenty years' experiment, a consummation which even the most optimistic could hardly have expected to witness in so short a time.

The thoroughness with which the Administration has carried out its difficult task of pacification and civilisation may further be recognised in the safety and facility with which one may travel almost from one side to the other of the huge territory. Merchants may now despatch great cargoes of valuable merchandise and unlimited treasure in comparative safety through the limitless desert, across difficult mountain-passes, over torrential rivers, and along the scattered routes of the numerous native tribes, which even but a few years ago had been a terror to any solitary traveller, and so great a menace to private property that trade was practically non-existent.

The mere name of the Administration—no longer one to occasion abject fear but rather to command respect—suffices to-day to open these long-closed avenues to internal commerce, while the individual traveller, unaccompanied and even unarmed, may pass from north to south upon ordinary routes and east to west without the slightest apprehension as to his personal safety.

In addition to this inestimable advantage—an advantage which a capable and vigilant government alone could succeed in creating and maintaining—swift trains carry perishable goods where slow and tedious camel-transport formerly prevailed; the telegraph and telephone and regular posts convey messages and correspondence in a few hours or maybe days, where before they could be delivered only after many long and weary weeks had elapsed. To-day, the Sudani or the foreigner lives comfortably and securely in a well-regulated, well-polished town, enjoying perfect freedom for

himself and his family, where formerly he dare not think of bringing them to reside.

All these benefits he enjoys ; but the circumstance may make but little impression upon his sluggish and unappreciative mind, and if it occurs to him at all it is accepted as an ordinary event to be taken in an ordinary manner, as unremarkable as the rising and the setting of the sun.

And what is he expected to contribute or "sacrifice," as he would prefer to term it, in return for these and many other communal benefits ? What share is he made to bear in the burden of administering a vast and difficult country rescued but a few years from savagery and desolation ?

He is expected to pay a tax upon the money which he now earns so easily, and to find his due proportion of the annual outgoings which must be provided to keep the ship of state afloat ; he is invited to perform his share of the duties devolving on all citizens, and to assist—rather than fractiously oppose—the Administration in maintaining order within its borders.

It may be, as has been stated in some quarters, that the burden of urban taxation at present is substantial ; but it cannot fairly be described as insupportable. It may be no less truly stated that a certain amount of official slowness is observable in the process of introducing reforms, and that red-tape employed at headquarters occasionally strangles the efforts of the more enterprising among the officers in the provinces. The strict control which the Central Administration maintains over all branches of expenditure chafes somewhat, and little consolation is, perhaps, to be derived from the knowledge that one province has been granted a particular concession which for some reason had been withheld from another.

No administration however ideal, no human efforts however earnest, could hope to satisfy all, or even the greater part of so heterogeneous a community as that to be found resident in the Sudan ; it can but do its best to rule justly and to rule honestly, according to the existing circumstances and the actual means which it finds at hand. This, I believe, the majority of fair critics admit has been,

and is being done in the Sudan, and the best proof indeed of such a contention may be found in the economic conditions of the country existing to-day compared with the chaotic and apparently hopeless state of affairs which prevailed when the Anglo-Egyptian Government first took up its burden of administration in September 1898.

It remains to add that the most bitter critics of the Sudan Government have been found among the small but noisy clique of aliens temporarily in the country, and some of whom no doubt rank among that irreconcilable class of citizens—like the proverbial Irishman always “agin the Government,”—constantly in antagonism to the ruling orders of the community. As a result of the war the greater number of these undesirables were expelled, and will not be again very readily admitted.

The determination by the responsible authorities that the Sudan—once restored to Egypt—should not be governed as Egypt had been^a governed has proved its salvation. There have been no hateful Capitulations, no Mixed Tribunals, and no Consular Courts with their interminable and perplexing claims for special privileges, exemption from ordinary obligations, and the numerous abuses and injustices to which these and other demands had led.

The system of administration which has been applied to the reconquered provinces, and which was decided upon in the Agreement of January 19, 1899, between the British Government and the Government of the Khedive, has proved the best which could possibly have been adopted. This treaty was the able work of Lord Salisbury, an undisputed administrative genius, and Lord Cromer, the latter, by personal experience gained both in Egypt and the Sudan, having been enabled to avoid the inclusion of anything likely to prove antagonistic to the people of the Sudan, or to give rise to friction with the resident aliens.

The Convention of January 19, 1899, laid down that the administration of the Sudan was to be vested in a Governor-General, who is appointed by Sultanic decree at British recommendation, and who cannot be removed save by means of a Sultanic decree issued under British consent.

Moreover, to render the Sudan absolutely free from Egyptian interference, no Egyptian law, decree, or ministerial *arrêté* applies to the Sudan unless by the Governor-General's proclamation.

There had been Turkish and Egyptian Governors-General of the Sudan from the year 1825 (Mohammedan, 1240), but for the most part the holders of the office seem to have ruled for a very brief period, twelve months being the average length of time, although a few considerably extended their governorships, as in the case of Khurshid Pasha, who ruled for thirteen years (1826-1839). His successor, Ahmed Pasha Abu Dan, also managed to remain in office for five years (1839-1844), but in the cases of the Governors who followed between 1850 and 1859 a period of little over one year seems to have been the extent of their individual rule.

The first British Governor-General of the Sudan was General Charles George Gordon, who acted for barely forty-three months,¹ and died at his post ; after an interval of thirteen years, during which period the country was ruled by the Mahdists, there came a second British Governor-General, Lord Kitchener, who was also Sirdar of the Egyptian army.

It is interesting to recall Gordon's remarks in his *Journals*, book vi., November 1884, in connection with the appointment of Lord Kitchener as Governor-General. Fifteen years before the actual circumstance took place, Gordon wrote : " If Kitchener would take the place, he would be the best man to put in as Governor-General." When Kitchener became British Agent in Egypt he followed the policy of his predecessor in office, Lord Cromer, in leaving the Governor-General of the Sudan very largely to his own discretion, a discretion which has never yet failed to prove sound and statesmanlike. While possessing the power of supervision, the High Commissioner at Cairo wisely refrains from exercising it except in the form of suggestions. The aim of both Lord Kitchener and Sir F. Reginald Wingate from the commencement was to decentralise as far as

¹ First term from Feb. 1877 to Dec. 1879; second term from Feb. 1884 to Jan. 1885.

possible, and to leave to the responsible men upon the spot the control and the details of administration. The present Governor-General, Sir Lee Stack, is following the same wise policy.

The Central Administration consists of the Governor-General, his Council, and the Provincial Governors. The two former for all official purposes reside in Khartoum, the capital, and have the control of the entire Sudan under their supervision. The pay of no official, before the war, exceeded £1500 per annum, that being the salary of the Governor-General, who, however, as Sirdar of the Egyptian Army, received a substantial addition. Since the cost of living rose so much official salaries have been substantially increased.

The Governor-General is assisted by his Council, the Civil Secretary, the Financial Secretary, the Director of Intelligence, the Legal Secretary, the Medical Director, the General Manager of Railways and Steamers, the Director of Agriculture, the Director of Posts and Telegraphs, the Director of Works, the Director of Customs, and the Director of Education.

The reform instituted by the Khedive Ismail of Egypt in dividing the Sudan into provinces was carried out in 1871, enabling each province to be governed by an official who is responsible and practically independent, instead of serving under a Governor-General resident in Khartoum, to reach which place from the majority of the seats of local government occupied many days and sometimes as many weeks.

For administrative purposes the Sudan is divided into fifteen provinces, namely, Dongola, Darfur, Berber, Khartoum, Kassala, Sennar, Kordofan, the Bahr-el-Ghazal, and the Upper Nile in the first class; and Halfa, the Red Sea, the Blue Nile, Mongalla, the White Nile, and the Nuba Mountains in the second class.

Not only are the duties of the Governor-General never-ending; the responsibilities are enormous—responsibilities which, at the time that the new Government took over the country, must have seemed overwhelming if not hopeless. After twenty years' experience the problems which had to

be solved have become less and less formidable, and while the burden of responsibility remains heavy, the decentralisation of much of the work of government formerly conducted in the capital has considerably relieved the situation. In addition, the Governor-General has for some years past relinquished a large portion of the detail work in the earlier stages of consideration to various permanent Boards: the members advise the Governor-General about all matters coming within the scope of their investigations.

Thus there are: (1) the Central Economic Board, which has been in existence since 1906, with its President and Secretary, whose functions are consultative: it possesses no executive authority; (2) the Civil Service Selection Committee, consisting of the officials of the Egyptian and Sudan Governments who have in previous years formed part of the Annual Selection Committee in London: these officials are not seen in the Sudan, since they sit either in Cairo or in London; (3) the Council of Secretaries, who deal with matters arising under the Pension Ordinance; (4) the Commercial Intelligence Bureau, which works in close contact with the Central Economic Board; (5) the Khartoum Town Improvements and Allotment Board, of which body several of the heads of departments are members, and who have the control of the sites for building on Government land—and practically all land in Khartoum is Government property—the laying-out of new roads, and of all questions affecting town improvements; (6) the Khartoum Museum Board; (7) the Labour Bureau; (8) the Permanent Promotion Board; (9) the River Board; (10) the Central Sanitary Board; and (11) the Repression of Slave Trade.

A decided change has come about in both the character and the scope of the administration of the Sudan. A few years ago the country had barely advanced from a state of barbarism, and it was then a question more of good government than of national government. While all consideration of Western civilisation then lay far in the background, and social problems had not even been thought about, the closest attention was devoted to the abolition of slavery, without, however, occasioning disorder or rebellion among

a people, many of whom had been accustomed from time immemorial to carry on this terrible trade under the open encouragement and assistance of the Egyptian Government. The danger, always imminent, of religious fanaticism breaking out afresh had to be watched with unflagging care and attention, while the extreme physical difficulties of governing a country twice the size of France and Germany combined, and partly consisting of swamp, desert, and primeval forest, occupied the whole of the attention of the Administration.

To-day things are different. Each province is really a small *imperium in imperio*, ruled by a duly appointed Governor and his staff of British Inspectors and Egyptian under-officials; distance has been practically annihilated by the excellent and complete telegraphic and telephonic means of communication, services aided by some thousands of miles of railway and by efficiently disposed garrisons composed of reliable native troops. Above all, a feeling of absolute confidence has been established between the Government and the governed, the moral effect of which upon the well-being of the people is enormous.

The satisfactory change in the situation has enabled the Government to devote more and more attention to those questions which had temporarily to be laid aside—questions of providing wider education, of social advancement, of improved methods of local native administration, of a more equitable system of taxation, of a closer inspection of sanitary matters, and generally of looking into, and, where found desirable, of improving the native mode of living. In a word, the early physical difficulties having been almost if not entirely overcome, the way has been cleared for the introduction by the Government of those administrative, judicial, and financial measures suited to the requirements of the primitive people whose welfare and interests have been committed to their care.

From the earliest days that witnessed the Sudan Government endowed as a separate and responsible entity, the greatest care has been exercised to keep the *personnel* of the Administration absolutely free from possible reproach

of official incapacity, favouritism, or oppression. It would be difficult to find any modern form of government which, taken as a whole, more fully responds to these conditions.

Service under the Sudan Government has become so popular, and is regarded with so much favour by the rising generation, that the supply of officials, both military and civil, is always far in excess of the demand. The conditions of service are, however, strict, and in some cases may even be regarded as severe, especially in regard to Oriental linguistic proficiency. In this requirement it is not rare to find candidates—otherwise suitable—failing to satisfy the requirements of the Departments.

Candidates are drawn from the highest educational centres of England, Scotland, and Ireland; that is to say, from the Universities of Oxford, Cambridge, and London, from the University of Edinburgh, and from Trinity College, Dublin. While recommendations from individuals with personal knowledge of the candidates are welcomed, no consideration whatever is given to introductions emanating from persons, however highly placed socially or politically, who cannot lay claim to such knowledge. This one step, along with several others equally important for maintaining the purity and efficiency of the administration of the Anglo-Egyptian Sudan, has been, and is, rigorously enforced.

The selection of officials in all Government Departments—military and civil—is based wholly and solely upon the general fitness and capability of the candidate and upon his intellectual and physical attainments; his general character and qualifications likewise bear an important part in the decision arrived at. On the other hand, information is neither sought nor admitted regarding religious views or political tendencies, the Government disclaiming any concern in such questions and sweeping them entirely aside from consideration.

Naturally among the large number of applicants for appointments who are continually being interviewed, many must fail; a very careful and conscientious consideration of all requests for admission results in the elimination of many applicants who are deemed to be ineligible. This is

the work of a Special Committee, and when its decisions have been arrived at there still remain at least four times as many candidates as there are posts to fill. Even when an applicant may be considered in all other respects fit and suitable, a Medical Board, which sits in London, may find him ineligible; he cannot, indeed, be completely assured of his success until he has further passed a stiff examination in Arabic.

From a "provisional," the candidate passes before a "final," selection Board, which meets annually in London in the month of August. When he has been definitely accepted, the candidate is offered a choice of appointment in Egypt or the Sudan, and according to his preference he is placed upon the Egyptian or the Sudan list. It occurs but rarely that the former is selected, but once the decision either way is recorded it cannot be altered; should the candidate hesitate in expressing his choice, the Government concludes that he is willing to serve under either Administration. Transfers of junior officials from one Government to the other have occasionally been permitted.

The successful applicant must now spend a further probationary year either at Oxford or Cambridge, at his own expense, in order to study Arabic, and during this time he must also attend courses of instruction in first aid, elementary surveying, account-keeping, anthropology, and such other subjects as the Selection Board may—in accord with the University authorities—consider necessary. Furthermore, the future official must know how to ride; if he does not, he is recommended to learn at once.

The probationary year at an end, the candidate has to undergo the ordeal of an examination in Arabic, and the results of this test determine his seniority. Still another medical examination must be passed successfully, and then the Selection Board once more sits in judgment, deciding finally whether the applicant shall be accepted or rejected. So high is the *esprit de corps* among the younger ranks of the officials, that it is not deemed by them sufficient to "scrape through" their first examination—the majority endeavour to pass with honours; and even the handsome

cash bonus of £100, which is presented to the successful competitor in the Advanced Arabic Examination, is of less moment than the distinction which his achievement brings to his Department, and which, incidentally, bears upon his own future promotion. The gaining of this high distinction is rare, there having been but four successful competitors up till now, among whom is the present Governor of the Blue Nile Province, Mr. G. E. Iles, O.B.E. Several young officers personally known to me have cheerfully devoted their entire furlough at home to improving their knowledge of Arabic either at language schools or by attending college lectures and studying law. With this lofty sentiment predominant among the juniors, it is not difficult to understand the pride with which heads of the Sudan Government Departments point to the class of official now serving the country.

The unlucky candidates are consoled by the official assurance that the "non-acceptance of a candidate does not by any means imply that he is not fully qualified for the service, but merely that, in the opinion of the Selection Board, other gentlemen have superior claims for consideration." With so numerous a list of suitable candidates from which to choose, the Board naturally select absolutely the best fitted of them all in every respect.

No first appointment is made for a longer period than two years, which term is considered probationary. If during this time the "candidate"—he is still so regarded in the official eye—is found unsuitable, owing to ill-health or any other cause, his services may be dispensed with on two months' notice; and in this case he is given a free passage to England, should he wish to go there, and a gratuity of fifteen days' pay. By the terms of Rule 33 of the "Conditions of Service under the Sudan Government" all newly appointed candidates have to sign a document setting forth these provisions; thus no injustice is inflicted should they be enforced. The number of such eliminations, however, is very small, for the preliminary investigations are usually so thorough and exhaustive that few unsuitable fish manage to slip through the very fine meshes of the net which the Selection Board keeps tightly drawn.

All officials are eligible for advance from one rate of pay to another in the same class every two years, and a Third Inspector, after serving for four years as such, stands every chance of being promoted to a Junior Inspectorship, and after a further two years to a Senior Inspectorship. In order to qualify him for an increase of pay or promotion, a Third Inspector must, within two years of the date of his appointment, pass an examination in law and a further examination in Arabic. Mere length of service establishes no claim to either an increase of pay or promotion ; everything depends upon the individual officer's abilities, his zeal, and the manner in which he carries out his duties, subject, of course, to the actual vacancies offering. No better test could be applied, nor any more convincing proof afforded of the selection of the fittest, throughout the Sudan Government Service.

The liberality of the Government in regard to pay does not end with the actual amount of salary earned. There are generous allowances for travelling expenses, rising in some unfavourable climatic provinces higher than in others, while grants are likewise made for forage and grooms, camel or pony hire, and some other small individual outlays. Officers permanently serving in Cairo, where living conditions are considered to be somewhat more favourable than in the Sudan, suffer a reduction of 10 per cent from their salaries.

Owing to the unparalleled financial situation prevailing in 1916, mainly the effects of the European War, the Government found itself obliged to temporarily stop promotions and increases of pay in the Civil Service, and, at the same time, to suspend any new appointments, even where vacancies existed, where this could be done without detriment to the efficiency of the administration. But former conditions have now been fully restored.

Making every allowance for the few drawbacks which may be admitted to exist in the Sudan Government Service, as in all other careers of this character, it is undoubtedly one of the finest that, without capital, interest, and years of hope deferred, lie within reach of the educated and hard-working young Englishman. The Service, admittedly, has its lights

and shades like everything else in this world ; omitting all mention of the solid advantages of the career in the way of pay and pension, and the less solid advantages in the opportunities which it gives for making a name, few who are acquainted with the Sudan deny that the Government Service possesses a distinct fascination for the typical English nature, owing to its exceptional powers and responsibilities and even to its occasional loneliness and dangers. That this is the almost universal opinion held among the members of the Service is clear from the expressions of deep regret with which they leave it at the end of their term, and the efforts which they make to retain their post.

CHAPTER V

The Anglo-Egyptian Administration (*continued*)—Provincial Governors—Functions and responsibilities—Inspectors—Grades, duties, and mode of life—Mamurs—Sub-Mamurs—Working of the administrative machine—Mohammedan rule—Moslem officials—Gifts to officials—Omdas—Sheikhs—European officials on retirement—On leave—Special health privileges—Married and single officials—Social advantages in the Sudan—Frequent changes of locality—Official zeal—Hardships of life in the interior—Punitive expeditions—Life on the frontier—Native disturbances.

NATURALLY the aim and ambition of every official is to become the Governor of a province, and many of those who commenced as Third Inspectors have been so selected. These enviable posts are not confined to military men, as was the case when the Sudan was undergoing early settlement, and when the sword necessarily played an important part in the administration of the country. To-day there exists a marked tendency in the policy of the Government to utilise the services of civilian governors where this may be done with safety and discretion. Thus civilian inspectors, when of sufficient seniority, are being more generally appointed to Governorships of provinces at suitable salaries. At the outset most of the Governorships and some of the appointments of Senior Inspector and Inspector were filled by British officers selected from the Egyptian army, and a proportion of these appointments will continue to be filled from the same source.

The position of a Provincial Governor is a very responsible one, for, subject only to the Governor-General, whose representative he is, he reigns supreme in his district, possessing the widest powers. Only tried and experienced men have hitherto been appointed, and it may be added

with fairness that till now failures have rarely been recorded. The Governors supervise and control the finances of their respective provinces, subject to the financial regulations of the Central Government ; they are in direct charge of all public animals, arms, equipment, and stores, any and all of which they must be prepared to deliver over in first-class condition at short notice for military purposes ; they are responsible for the due observance of all ordinances, orders, and regulations, and for the performance of same by their subordinates ; they both administer justice and see it administered, while all official correspondence must pass through their hands. Heavy work is entailed upon them notwithstanding the assistance that they receive from their staffs, especially at times of assessment and collection of local taxes : the hearing and consideration of numerous appeals that are made—both reasonably and unreasonably—for relief, visiting their outlying districts, which sometimes entails a week and even two weeks' day and night travelling through the desert, together with a multitude of minor duties, leave these hardworked officials, as a rule, but few hours free. They even have occasionally to take up arms against turbulent tribes, and, as in the case of Major C. H. Stigand, Governor of Mongalla, in December 1919, to lay down their lives in the service of the Government.

The Senior Inspector ranks next to the Governor in importance, and it is usually from this class that future Governors are selected. In many cases the Seniors serve as Acting-Governors whenever the supreme authority is absent, and thus they receive a practical training in their more responsible duties before being definitely called upon to assume them.

In his own department the Senior Inspector is expected to be constantly at headquarters and to ensure uniformity of administrative methods during the absence of the Governor, and to act as his right hand when he is present. He ranks as a first-class magistrate and administers both civil and criminal justice. Very often he is placed in complete control of an entire district, such district being, perhaps, as large as England and Wales combined ; then he is a " Governor " in all but name. There are certain provinces

to which a Senior and a First Inspector are allotted, and in these cases their respective duties are dictated by the Governors. For instance, the Province of Kordofan, which has an area of 100,000 square miles, has 9 Inspectors and 1 sub-Inspector; Mongalla, with an area of 90,000 square miles, has also 9; and the Upper Nile Province, with an area of 42,350 square miles, has 8.

While the duties of the Junior and Deputy—or, as they are now officially termed, “Second” and “Third”—Inspectors are of less responsibility, they are nevertheless sufficiently serious and onerous to demand the most careful attention and conscientious consideration from those who perform them. Generally these officials are detailed for duty and residence in the various districts into which the province is divided, and they are answerable to the Governor for the due discharge of such duties. Under them are the Mamurs, the lowest rank of native magistrate, and the Inspectors must supervise their subordinates’ duties. They are likewise in charge of the police in their district.

The Mamur, who is generally an Egyptian and occasionally a Sudanese officer and a man of first-class ability and quality, acts as magistrate in minor cases, and is held responsible generally for the carrying-out of all orders and regulations emanating from the Second or Third Inspector’s Offices, and for the efficiency and discipline of the Police Force. In most districts a sub-Mamur is engaged, and sometimes more than one; this official assists the Mamur and is subject to his instructions. The Mamur and sub-Mamurs, moreover, must execute in their capacities of magistrate all decrees and judgments issued by the Kadi (a religious judge) from the Mohammedan Law Courts under the Civil Justice Ordinance.

In addition to the above-named permanent officials appointed to each province and each district, there are a number of prison officers and store-keepers, natives or Egyptians, each of whom has assigned to him his particular duties.

The whole administrative machine appears to work with entire smoothness, regularity, and orderliness, a complete

system of procedure being maintained in each department and sub-department. The absence of friction or confusion makes a favourable impression when compared with the chaotic scenes usually noticeable in some Government offices under Oriental control.

In all provinces, as well as in most districts, there is a separate Mohammedan Court, presided over by the Kadi, who deals with religious matters only. These are usually of a sufficiently numerous and complex nature to keep the Judge fully occupied for the greater part of the day. Appeals from his decisions may be, but very seldom are made to the Court of the Grand Kadi at Khartoum. This Court is judicially independent of the Executive, but from an administrative point of view even the Kadis and minor officials of the Mohammedan Courts are subordinate to the Legal Secretary of the Sudan Government. The two staffs, however, work together quite harmoniously, and differences of opinion or of policy seldom arise. Obviously it is the administrative staff which is called upon to execute the decrees and judgments of the religious Courts, and this procedure is carried out with commendable tact and discrimination through the Mamurs, who mostly, but not invariably, are Mohammedans. From the very commencement earnest efforts have been made, and made successfully, to fulfil the solemn promise given by Lord Cromer to the people of the Sudan, pledging the non-interference of the Government in any shape or form with religious affairs.

Hostile and, it must be added, unthinking critics declare that the Moslems of to-day are really little more advanced temperamentally than the Moslems of 1300 years ago. They point as an evidence of their contention to the enslaved condition of their women in Egypt and the Sudan. Even admitting that the doctrine which imposes the veil on Moslem women is out of date—it is, indeed, declared by many Mohammedans themselves to be against the tenets and principles of Islam—there can be no question that institutions like the Gordon Memorial College have helped, and are helping day by day, to assist Moslems along the paths of development and progress. It is undeniable that

the present generation of Moslems are superior both intellectually and morally to those of bygone years, and the Egyptian bureaucracy, under the tutelage and supervision of the British, are proving themselves to be capable of assisting in an Administration, even if upon occasions—as during recent times—some of them prove troublesome.

What the Moslem official has hitherto lacked has been a sufficiently strong and firm hand to control him; he is quite capable of performing good and useful work, but not intuitively. It must be exacted from him primarily, and encouraged by continual example and occasional admonition. Left wholly to himself, there is very little doubt that the average Moslem bureaucrat in the Sudan would speedily fall back into slack ways, and attempt to revive many of those discreditable and dishonourable practices which caused the administration of the Turk to stink in the nostrils of the Sudanese little more than a quarter of a century ago. These practices were the primary cause of the long years of misery and oppression which the unhappy people of that country endured. The curse of fifteen years of Mahdi régime which followed proved hardly more terrible than the experiences under Egyptian rulers.

One great difficulty with which the Administration of the Sudan has had to contend has been, and is, the widespread Eastern custom of making gifts, sometimes of great value, to the heads of departments and to minor officials.

A similar rule used to exist—doubtless it still obtains—in India, where the only kind of present which Government officers were permitted to accept from the natives took the form of “dollies.” A dolly consisted of trays of provisions, the number of which was regulated by the rank of the person to whom the compliment was paid. Thus a Lieutenant-Governor received fifty trays, while the least important official had to be content with ten. The rule against making gifts to Indian civil servants would not appear to be very rigorously enforced, if one may judge from the usually large collection of “curiosities”—some of which are valuable, and not always purchased in the bazaar—with which Anglo-Indian civil servants still return home.

Every Hindoo strives his utmost to confer obligations upon men in authority, and in India it becomes rather difficult to avoid them. It is, however, different in the Sudan, where neither the opportunities exist nor the spirit of acquiescence prevails.

It is, and always has been, repugnant to the minds of the British governing class to accept presents, which may not ineptly be described as bribes, from those who are subject to their authority; but in the Sudan the custom is so general that to have swept it out of existence without permitting some exceptions would have resulted in deeply offending the native mind and severely wounding the best-intentioned donors. In any case no presents of fire-arms may be made to natives unless the previous consent of the Governor-General has been obtained, and this is not easily secured. Certain stringent rules have, however, been laid down to guide officials, and these are generally observed, the discretion which is allowed to Provincial Governors being, on the whole, wisely exercised.

The Governor-General himself is frequently obliged to break away from the principle of the rule imposed, since in his official position he must consent to the exchange of gifts between himself and native chiefs in their ceremonial intercourse; on the other hand, his presents are invariably of greater intrinsic value than those which he receives. In those cases where presents (unless of but a trifling worth) are received by Provincial Governors or their subordinates, they have to be delivered up to the Central Government; from this practice no deviation is permitted without the express sanction of the Governor-General. The Egyptian rulers of old were not only in the habit of freely accepting "presents" but of cruelly enforcing them; under the new régime these officials—now happily almost eliminated from the Administration—found themselves deprived of one of their chief sources of enrichment. But the ordinance is a thoroughly wholesome one, and being, as indicated, strongly adhered to, it has had an undoubtedly beneficial moral effect upon the minds of the native population.

The punishment which may be inflicted upon any public

servant for violating this injunction extends to a heavy fine or to three years' imprisonment, or to both. The number of convictions of such offences upon record is infinitesimal.

Much still remains to be effected in reforming village life in some parts of the Sudan, more especially with regard to a closer supervision of the men who hold the offices of Omda and Sheik. The natives still pay almost superstitious reverence to their responsible chiefs, and no doubt it would be a highly dangerous expedient upon the part of the Central Government to adopt a policy calculated to lessen this sentiment of immemorial existence, since it is one which not only holds villages and communities together, but relieves Government itself of an immense amount of minor work and a great deal of personal responsibility.

It is the Government's aim and policy to select as Omdas and Sheiks the most efficient and trustworthy natives who have the confidence and respect of their own people. The various native tribes of the Sudan differ greatly in respect to intelligence, enlightenment, character and reliability. Some tribes produce fine types of men who under the present beneficent régime have developed well, and, through merit, have risen to official positions of responsibility and honour. On the other hand, there are many benighted tribes upon whom the dawn of civilisation is only just beginning to break after long ages of dark savagery. Therefore it is not astonishing that some minor native officials are found guilty of petty tyrannies, oppression and robbery. Their traditions of the past uphold such corrupt practices, especially during the iniquitous rule of the Turks and Egyptians, and the reign of terror under the Mahdi and Khalifa. Omdas and Sheiks receive no pay from the Government for their services, but are allowed to make undefined levies on their people. This custom offers a temptation which the avaricious find it difficult to resist. The adoption of a system of fixed remuneration paid by the Government to Omdas and Sheiks would go a long way towards preventing fraud and oppression. The increased expenditure could surely be recouped by definite Government taxes local or, otherwise.

When an official has passed some of the best years of his life in work in the Sudan, either as a soldier or a civilian, he may retire with a certainty that his old age will be comfortable, so far as a liberal pension can help towards making it so. Far different, indeed, in this respect is the treatment adopted by the Sudan Administration from that pursued by the British Government, probably one of the meanest of all Administrations, so far as its treatment of its soldiery is concerned, even while adopting a recklessly prodigal pension scheme for many of its politically appointed friends.

Pensions granted to Sudan officials upon retirement, voluntary or compulsory, are regulated by ordinance; they are in no way dependent upon the goodwill of any individual in the Administration. In order to render such pension as full as possible, a deduction of 5 per cent is made from the pay of every pensionable official as a contribution towards his pension. It is permissible to retire voluntarily, but there are few instances of this occurring, the one great wish of nearly all the officials, military and civilian alike, being to continue to serve as long as it is legally and physically possible to do so.

Those, however, who choose to leave the service may retire upon pension after reaching the age of forty-five, provided they have completed twenty years' service. Their pensions are then calculated on the average of the salaries drawn during the last three years of service, at the rate of $\frac{1}{8}$ th part of the salary for each year of service.

Should ill-health or annulment of the office cause retirement a pension is obtainable after twelve years' service, while those possessing more than that number of years' service obtain a gratuity of one and a half months' pay for each of the first seven years, and three months' pay for each of the years from seven to twelve.

The Sudan Government, wherever possible, and in conformity with the requirements of the country, permits, and, indeed, encourages officials to go on leave. By the regulations in existence officers are granted leave (after the first year) at the rate of ninety days per annum, counting from the date of their departure from and return to Cairo.

There exists a special provision for longer periods than that mentioned when ill-health is the cause, and this provision is never disregarded when necessity or humanity dictates. Moreover, owing to the severe climatic conditions prevailing in the remote parts of the Sudan, the Governor-General obtained a concession from the British army authorities to count service below the 12th parallel of latitude and in unhealthy districts as double service—the same as in certain portions of West Africa and Nigeria.

Upon one point the Government is compelled to remain firm; that is the engagement of single in preference to married men, the reason being the extreme unsuitability of the country, considered as a whole, as a place of residence for white women. Except Khartoum, Atbara, Port Sudan, El Obeid, and Wad Medani, there is no place in the Sudan as yet where Englishwomen can live in comfort. Thus all candidates for appointments are made clearly to understand that they must neither be married nor yet engaged to be married, and they are warned that the Government will probably dispense with the services of any official who becomes a "benedict" during his period of probation.

A considerable proportion of the superior officials in the large towns are married, but few wives live in the Sudan.

The position of the unpensioned official is decidedly less enviable. The high salaries which are offered lose much of their allurements when the present cost of living in the Sudan has to be met; to save becomes extremely difficult, while the few economies which are effected by maintaining a modest expenditure upon existence and exercising extreme moderation in regard to amusements are swallowed up by the indispensable "leave" and the expenses of home journeys. Probably the same class of men might have done better for themselves in any of the British Colonies or in India.

Moreover, the social advantages which are offered to civilians holding subordinate positions in the Government offices are not great. The necessary line of demarcation between the superior and the subordinate ranks is extremely tightly drawn, but very few complaints are heard.

On the other hand, apart from the generally encouraging

prospects which are enjoyed by Government officials, senior and junior alike, life is made as easy as possible while actually serving in the Sudan. Until quite recently the official paid no tax of any kind, and even now his share of the imposts levied is merely nominal. He enjoys a handsome reduction upon his mess-bills when travelling on Government steamers and railways, while his actual transportation, when employed on Government business, costs him nothing. The best of accommodation is usually reserved for him; and since the conduct of the transportation arrangements is entrusted to Government officials, it may be understood that such demand is not lacking.

In Khartoum, as in Atbara, the choicest sites have been selected for Government official residences, and many of these edifices compare strangely with the extremely modest houses inhabited by some of the Provincial Governors and their Inspectors. The habitations of many of the provincial officials are unsanitary and devoid of comfort. Furthermore, the appearance of such abodes is not helpful in indicating to natives the dignity and power of the State, or the superior caste of its resident officials. No doubt the Sudan Government will as soon as possible take steps to improve the hard conditions of life of its officials stationed at outlying posts where they have to face many trying ordeals, especially the deadly diseases of the tropics. Joseph Chamberlain declared that "it is of vital importance to safeguard the health of officials by every possible means, to ensure efficiency and success in administering and developing tropical regions, and it is false economy to ignore these facts."

It is characteristic of the British official wherever his duties may take him—whether to the torrid heat of the tropics or to the rigorous colds of northern latitudes—to make the best of the situation in which he finds himself for the time being. He speedily settles down in his strange surroundings, establishes himself quietly in his simple straw hut or his mud-brick residence, decorating the bare walls with such of his *lares et penates* as he may have been enabled to collect around him during his exile, and forthwith he sets about forming a tennis, squash-racket, or a

fives court. To "keep fit" is his main concern, and this can only be done by regular and violent exercise, even in a sweltering climate like that of Central Africa. Many of the provincial officials, young men who have immense districts the size of principalities to look after, find it difficult to fit in much recreation with the performance of their multifarious duties; but they prefer to sacrifice a portion of their customary sleeping-hours rather than forgo their quantum of physical exercise. They cannot afford to become flabby or "run down"; to avoid qualifying for the sick-list any sacrifice will be made, and almost any inconveniences will be endured. Not only does indisposition interfere with views of promotion and customary leave, but it is considered to be unjust to "the other fellow"—the colleague and chum—upon whose already sufficiently burdened shoulders must fall the performance of neglected or postponed duties. The spirit of loyalty and good-fellowship among the officials is very pronounced, and if sometimes this unselfishness is carried to a superlative degree one feels inclined to condone rather than condemn it.

In concluding his report upon the Sudan for 1906, Lord Cromer wrote: "In order really to appreciate the zeal and intelligence which the various officials in the Sudan are bringing to bear upon their work, it would be necessary not merely to read their Reports but to visit the remote and inhospitable localities in which their work is conducted. Their country has every reason to be proud of them, and I hope and believe that, with the exception possibly of a few individuals, it is proud of them."

During my travels in the Sudan I have visited many, if not most, of the "remote and inhospitable localities" to which Lord Cromer referred, and I can endorse in every particular the eulogium which H.B.M.'s late Agent and Consul-General passed upon British officials who serve, and have served, the Government there.

To the uninitiated the frequent changes which occur among the *personnel* of the local administration may appear unusual, and even undesirable. It is supposed that when an official has once become accustomed to a district and has

in reference to an article upon the "Administration of the Sudan" that I had contributed to the *Quarterly Review*. Lord Cromer said, *inter alia*: "Allow me to add that I entertain a very strong opinion as regards the debt the whole country owes to all the young officials in the Sudan, whether civil or military. From the point of view of education, especially technical education, they are perhaps rather behind those of the same class in France or Germany, but no nation possesses imperialist agents of such value and utility. All that is wanted is for those in authority out there to give them a little friendly guidance on matters of principle, and then mainly leave them alone. They will, of course, occasionally make mistakes, in which case their superiors have to get out of the difficulty as well as they can, and should always, if it is at all possible to do so, afford them strong support in public. But such mistakes, even when they occur, are of slight importance compared with the advantage gained by leaving them free agents, and not deadening their sense of responsibility by constant interference and orders on matters of detail." I feel sure these spontaneous and sympathetic words of encouragement by one who during his lifetime was universally recognised as the greatest of pro-Consuls will afford gratification and pride to the Sudan officials of all ranks.

Accompanied by a score of troopers a Provincial Inspector or an officer may be ordered to proceed to the scene of dispute—a dispute which has, perhaps, arisen through the members of one tribe having annexed a few sheep or cattle which were the property of another. He will probably, by peaceful persuasion or, in the extremity of the case, by threats of Government reprisals, induce the thieves to restore their booty to the rightful owners. But there are occasions—fortunately rare, and becoming steadily rarer—when neither persuasion nor threats avail anything. The delinquents may feel so secure from punishment, owing to the inability of their rulers to enforce their threats or to pursue them into their mountain fastnesses, that the officer is compelled to retire temporarily unsuccessful; he can only warn the offenders that the Government will

remember the incident against them, and sooner or later will call them strictly to account for their offence. Usually, however, the moral effect of the official visit has the desired result. Most of these mountain tribes in their native fastnesses possess almost complete security from pursuit by the authorities. As they are mostly armed with European weapons, mainly by gun-running through Abyssinia, it is surprising there is so little resistance to the demands of Government, and so great a respect shown to its silent and almost unobtrusive authority.

Those who serve the Sudan Government often do so at considerable risk to their own safety, and many military officers and civil officials, especially the younger men, have gallantly laid down their lives in the performance of duty in the disturbed districts or upon the frontiers. Amongst the notable sacrifices are the following: Captain Moncrieff, R.N., British Consul at Jeddah, and 160 Egyptian officers and men were killed by Dervishes near Trinkitat. Near Messellamia in the Blue Nile Province in April 1908 Mr. C. C. Scott Moncrieff, an important Government official, together with the Egyptian Mamur of the district, were treacherously murdered by members of the notoriously turbulent Halowin tribe. The just punishment of the murderers of this brave British official aroused the usual indignation and deep resentment of Keir Hardie and his followers in Parliament. In April 1912 Captain Kinahan and Captain Lichtenberg, while defending the Nuer tribes, were killed in action by the lawless Anuac raiders. In March 1914 Major J. L. J. Conry, D.S.O., was killed at Wad Hadi, about 60 miles from Gedaref, while in action against a gang of outlaws. In December 1919 both Major Stigand, the Governor of Mongalla, and Major White were killed in action near Tombe by marauding tribesmen. In the still unsettled parts, encounters with the lawless tribes must necessarily occur from time to time. Within some corners of the Sudan officers may yet leave their quarters in the morning with no certain knowledge that they will return alive at night. The situation to-day is fairly satisfactory, except in the troublesome districts of the south

and on the Abyssinian frontier, where the Sudan Government hope soon to check the raids and gun-running by forming frontier posts. The French frontier question in the west is not yet settled.

In spite of occasional troubles, no one can travel through the country and mix with the people without being strongly impressed with their generally happy and contented appearance. The air of terror at the approach of a stranger, the fear of a blow when an official makes his appearance, the dread of being at least robbed and perhaps borne off into slavery, have vanished for ever; the Sudan native is as free as the air that he breathes, and the natural gaiety of the native has fully returned. So long as he behaves himself and contributes his modest proportion of taxation to help in maintaining the administration, no one will interfere with him; he works if he pleases, and is paid for his labour; he remains idle if he prefers, and there is no one who can compel him to toil.

Since writing page 52, the *Sudan Times* has reported as follows (July 17, 1920): "The series of criminal trials at Sennar ended the 6th inst. In view of the official position of accused, the charges were of the gravest character, namely, criminal breach of trust by a public servant and cheating natives so as fraudulently to obtain delivery of their property. The most serious aspect of the case was that it disclosed a regular system of corrupt extortion and misappropriation in connection with the collection of ushar dura in kind, which affected the whole district, and might have led ultimately to great discontent and even more serious trouble. The Mamur, El Yuzbashi Amin Eff. El Mufti, found guilty on several counts of cheating and inducing villagers to deliver their property to him, was sentenced to four years' imprisonment and fined £E500; Sub-Mamurs M. A. Aziz Eff. Kamel and M. A. Habib Eff. Abdel Melek, found guilty of criminal breach of trust as public servants, were sentenced respectively to two and one year's imprisonment. Mulazim Tani Almed Eff. Hilmi was fined £E200; and Georgi Asad was sentenced to be imprisoned one year and fined £E50." *

CHAPTER VI

Makers of the Sudan—General Gordon—As soldier and administrator—His influence upon others—Lord Tennyson's tribute to Gordon—Florence Nightingale's admiration—Sir Evelyn Wood—Reform of the Egyptian Army—"Kitchener the Conqueror"—Difficulties and discouragements—Lord Kitchener, Sirdar and Governor-General—His great career—Services to the Sudan—A shower of honours—His interest in the Sudan undiminished—General Sir F. Reginald Wingate—As Intelligence Officer in early campaigns—Value of services in 1884-85—Tribute of the late G. W. Steevens—Wingate as Sirdar and Governor-General—General Sir Lee Stack as Sirdar and Governor-General—His fine record—Sir Rudolf Baron von Slatin, late Inspector-General—Retirement upon outbreak of the European War.

IN the making of the Anglo-Egyptian Sudan the names of many distinguished Englishmen stand out in bold relief, and history must be diligently searched for the name of one who, having had administrative powers conferred upon him, has failed of his trust. First and foremost we have had the incomparable Charles George Gordon, whose career has formed the subject of so many biographies, treatises, and poems. Moreover, his papers and letters remain to us in published form, and no part or phase of his long and useful life seems to have been concealed from the public knowledge.

Gordon's connection with Egypt and the Sudan commenced in 1874, and continued with certain interruptions until his death at Khartoum in 1885. No one can peruse the ample literature which deals with that part of his life spent in the Sudan without being convinced of Gordon's absolute honesty and earnestness of purpose. Faults he had, no doubt—he was the first to admit the fact; frequently throughout his *Journals* he confesses how difficult it is for others to "get on with him." Occasionally he may even have been found contradictory in his statements, as,

for instance, when we find him writing on page 168 of his *Journals*: "I do not advocate the keeping of the Sudan by us—it is a useless possession"; while upon the page following he declares "it would be nobler to keep the Sudan." Nevertheless, with all his faults, Charles George Gordon, as his most noted biographer—A. Egmont Hake—has eloquently put it, was "true to himself to the very end. Those familiar with his character and life will see in him the same ardent passion for justice and for truth; the same scorn for wrong-doing and deceit, the same gentle pity for the suffering of all, and the same mercy and forgiveness for his enemies—and with all this is combined the perfection of humility and the sense of imperfection." Assuredly the memory of such a paragon among men—who was also an heroic soldier—will never be permitted to perish in the country wherein he so nobly laid down his life. The Sudanese people hold his name in highest reverence.

Biographies of General Gordon are so numerous, generally so complete, that the reader has an immense choice of literature on the fascinating subject at his disposal.

Another great soldier to serve the Sudan was the late Field-Marshal Sir Evelyn Wood, V.C. After the battle of Tel-el-Kebir the Egyptian Army was disbanded, but in 1882 Evelyn Wood was commissioned by Lord Granville, then Foreign Minister, to go out to Egypt and raise a new army. Before leaving upon his mission, £200,000 was placed at his disposal for the purpose. Of this he expended £180,000 in the first year. Wood was given the post of Sirdar at a large salary, just half as large again as that which Lord Dufferin had at first offered him. The first troops raised included an infantry brigade, cavalry, and artillery under a Turkish general, Schudi Pasha. In a few weeks' time Sir Evelyn was able to parade eight battalions and four batteries all up to "Aldershot pattern." Soon afterwards cholera broke out in Cairo, and all the ministers as well as the Khedive fled. Sir Evelyn Wood, Sir Edward Malet, and Valentine Baker Pasha pluckily remained at their posts, and at this time practically ruled Egypt. We learn from the distinguished Field-Marshal

himself that "from the cholera time on, the fellahcen soldier trusted the British officer."

Like most reformers, Evelyn Wood did not escape censure or condemnation at the hands of home critics. Sir Stafford Northcote—afterwards Lord Iddesleigh—attacked him bitterly in the Commons, accusing him of having been the cause of the disaster to Hicks's army, and alleging that it was he who had refused to send succour to Gordon at Khartoum. Both statements were equally false, and Wood did not hesitate to so describe them. Certain it is that the foundations of the present excellent army in Egypt and the Sudan were laid by Sir Evelyn; the good work done by British officers has been directly traceable to the organisation and example initiated by that splendid soldier some four decades ago. His whole official career in the Near East was worthy of his fine record in other parts of the world—the Crimea, India, South Africa, Ashanti, and Hindustan. In the Sudan his name will never be forgotten, nor should it be allowed to fade.

It has also fallen to the lot of the Sudan to enjoy the services of a third great soldier—one of the greatest in the whole history of the British Army, and of whom General Gordon held a high opinion from the very beginning of his great career—Horatio Herbert Kitchener, baron, viscount, belted earl, and Knight of the Garter all within a few years, and a Field-Marshal of the British Army in 1909.

Lord Kitchener's connection with the Near East commenced in 1874, when he accompanied the Palestine Survey Commission, subsequently transferring his services to that of the Cyprus Survey; thereafter he commanded the Egyptian cavalry between 1882 and 1884, at the time that Sir Evelyn Wood, as already noted, was raising the new Egyptian Army, and he also lent his valuable aid to the Nile Expedition of 1884-85.

In 1884 Major Kitchener, R.E. (as he then was), had proceeded in advance of the British forces upon a delicate and undoubtedly dangerous mission, for the idea of which not only was he responsible but which he offered personally to carry out. He desired to ascertain certain

facts concerning the Mahdists and their movements; in order to do this the more effectually, for many weeks, in imminent peril of discovery—which meant instant death—he lived in disguise, wearing the dress of an Arab, and so well “made up” as to be scarcely distinguishable from a native.

Two years afterwards, when Kitchener became Governor of Suakin and the Eastern Sudan, he obtained his first great opportunity of showing his capabilities as a handler of men. His chief opponent, Osman Digna, found out very speedily that he had to deal with one as fertile in resource as himself if more scrupulous in method. Kitchener recognised that in order to hold the Sudan, the Egyptian troops would not only have to be increased in numbers, but improved in *moral*; nevertheless, he did not push his demands at that time to extremities.

Unlike Gordon—who had described him as “one of the few really first-class officers in the British Army”—Kitchener volunteered for one difficult and dangerous duty after another. Gordon, on the other hand, while perhaps hungering for the opportunity, waited until he was called upon. The one occasion upon which he did not do so was when he offered his services to the Cape Ministry in April 1881, and when he was so severely snubbed that he never forgot it.

Lord Kitchener's keen interest in the Sudan and its prosperity remained undiminished to the end of his life, so tragically and mysteriously ended in June 1916. Although there no longer existed the necessity for his carefully scrutinising every detail of administration, as was deemed indispensable when others ruled at Cairo and when by reason of their continual official interference the wheels of the governmental machine were continually being clogged and impeded, Lord Kitchener, as British Agent and Consul-General in Egypt, maintained a careful supervision and control over all matters requiring his personal attention and sanction.

He generally managed to find time, at least once during the year, to visit the Sudan, arriving and departing without any ostentatious ceremony, and devoting every hour during his visit to some good and useful work, either in the direction of inspection of new constructions or in expert investigation.

As associate of the two last-named soldiers, General Sir Francis Reginald Wingate shares with them the distinction of having helped to bring about order from chaos in the Sudan. He did more than either in some respects; for a score of years he gallantly accepted the arduous drudgery of administering an almost savage country of which no one—not even the brave and patient Gordon himself—believed it was possible to effect any permanent reformation.

Sir Reginald's connection with the British Army dated from 1881, when he went out to India as a simple lieutenant. Two years later (1883) he joined the Egyptian Army, and during that year, in the capacity of Commandant of the Cholera Hospital, he won golden opinions as an organiser, and gained as his first reward—since followed by nearly everything that a successful soldier could hope to receive—an Egyptian order, that of the 4th class Osmanieh. Then young Wingate commenced his relations with Sir Evelyn Wood, being appointed his A.D.C. and Military Secretary during the Nile Expedition and the Bayuda Desert Expedition of 1884–85. Soon he became A.D.C. to the G.O.C. of the Eastern District, and rose gradually to be Captain and Major. It was as Intelligence A.A.G. that Major Wingate particularly distinguished himself. Every military authority who knew him in this position testified to his extraordinary ability and resourcefulness. For 16 years he was closely associated with Kitchener in planning and preparing for the reconquest of the Sudan and the redemption of Britain's honour.

The Intelligence Department during Kitchener's campaign of 1897–98 was entirely under Wingate's management. He was Kitchener's unfailing "right hand," and was ably assisted by Rudolf von Slatin Pasha. Their spies were everywhere, and the information that they were enabled to gather—weighed, tabulated, sifted, scrutinised, and tested—proved invaluable. It has been said by competent military critics that no British General was ever better served by his intelligence officers than was the then Sirdar (Kitchener).

The late G. W. Steevens, speaking once of Wingate, said: "Whatever there was to know, he knew it; for he makes

it his business to know everything. He is the type of the learned soldier, in which perhaps our army is not so strong as it is on other sides. If he had not been chosen to be chief of the Intelligence Department of the Egyptian Army, he might have been Professor of Oriental Languages at Oxford. He will learn you any language you like to name in three months. As for that mysterious child of lies, the Arab, Colonel Wingate can converse with him for hours, and at the end know not only how much truth he has told, but exactly what truth he has suppressed. He is the intellectual as the Sirdar (Kitchener) is the practical compendium of the British dealings with the Sudan. With that he is himself the most practical of men, and few realise how largely it is due to the system of native intelligence he has organised, that operations in the Sudan are now certain and unsurprised instead of vague, as they once were. Nothing is hid from Colonel Wingate, whether in Cairo or at the Court of Menelik or on the shores of Lake Chad. As a Press Censor he has only one fault. He is so indispensable to the Sirdar that you can seldom get speech with him. His rise in the army has been almost startlingly rapid ; yet there is not a man in it but, so far from envying, rejoices in a success earned by real gifts and unstinted labour, and borne with an invariable modesty."

Colonel Wingate knew the Arabs, their faults and their virtues, so well, that he was able to extract information from them when no one else would have induced them to divulge anything. Every spy captured from the enemy's camp was brought to him, while every spy sent out to gather information was by him instructed and primed in his duties. It took a whole fortnight to perfect the knowledge of Mahmoud's movements at the Ras Hude, just before the battle of the Atbara, daily reconnoitring taking place of an enemy within twenty miles, but whose actual position and precise strength proved most difficult to ascertain. The perfection of the information when obtained, sifted, and carefully arranged so as to be used in a practical manner, was amply proved by the complete and swift success achieved when actual operations against the enemy had

once begun commenced. In 1889 Wingate was mentioned specially in despatches, and received the D.S.O. and clasp. Still serving in the Sudan in 1894 he soon became Colonel—appointed Governor of the Red Sea Province, and officer commanding the troops at Suakin.

Among the more notable engagements and missions in which Colonel Wingate, then created C.B., took part during the troublous times in the Sudan, were the Dongola Campaign of 1896, in which he served as Director of Military Intelligence; the Nile Expedition of the same year; the battle of the Atbara, 1898; the battle of Khartoum and the Fashoda expedition.

The Houses of Parliament thanked Colonel Wingate for his services, not the least of which was ridding the world with his own hand of that pestilential individual, the Khalifa Abdullahi, near Gedid, on November 25, 1899; for this and other doughty deeds the Sovereign conferred upon Colonel Wingate the dignity of a K.C.B. When in 1900 a special mission was despatched by the British Government to Somaliland, Colonel (and local Major-General) Wingate was given the command. In 1903 he became Major-General, in 1908 Lieutenant-General, and in 1912 General.

Sir Reginald Wingate served as Governor-General of the Sudan from 1899 until his appointment to the High Commissionership of Egypt in 1917; that is to say, almost from the time that the Sudan was rescued from barbarism and entered upon a period of peace and prosperity under combined British and Egyptian rule. For his invaluable services in the Sudan as Governor-General and in Egypt as High Commissioner the dignity of a baronetcy was conferred upon Sir Reginald Wingate in the spring of 1920. The course of Sir Reginald's wise and just government is faithfully chronicled elsewhere in these pages; the great significance and immense value of the work which has been accomplished in this vast and important but little-known and less-understood section of Africa may some day be appreciated and recognised as fully as it deserves. It is to be feared, however, that the real sacrifices, anxieties, and dis-

appointments which were experienced during the forty years of his loyal and efficient services to the Empire, including the twenty years of his Administration, while modestly but zealously labouring almost unnoticed, can be adequately realised only by those who have been privileged to watch some part of the evolution of the Anglo-Egyptian Sudan on the spot.

Major-General Sir Lee Oliver Stack, K.B.E., C.M.G., succeeded Sir F. Reginald Wingate as Sirdar of the Egyptian Army and Governor-General of the Sudan upon the promotion of the latter to the High Commissionership of Egypt. General Stack had been acting Governor-General of the Sudan since 1916, and before that was Civil Secretary to the Sudan Government. He entered the army in 1888, and became Major in 1909, when he retired. General Stack's services in the Sudan have been long and distinguished, his name having been associated with the Shambe Field Force, in connection with which operations he gained the medal and clasp of the 4th class Osmanieh. Under his governorship the Sudan has continued to progress, and no better successor to General Wingate could well have been found. From the day of his appointment, first as acting Governor-General, he entered upon his various duties with sympathy and acumen. The Darfur campaign initiated by his predecessor was brought to a happy close, and a vast new province added to the Sudan's charge. Always popular with British officialdom, respected and esteemed by the natives, and aided at the Residency by the agreeable hospitality displayed by Lady Stack, the Governor-General has succeeded in upholding the very best traditions of the Empire in far-distant Africa. Sir Lee was born in 1868. He takes the liveliest interest in the educational as well as the military training of the rising generation in the Sudan.

The post of Inspector-General, created specially for Baron Sir Rudolf Slatin, although consultative and not administrative, proved of immense advantage in carrying out the reformation of the Sudan. No better qualified occupant could have been found than Sir Rudolf, whose unique experience of the country and its inhabitants had enabled him to render services of exceptional value.

CHAPTER VII

Government Departments—Posts, telegraphs, and telephones—Installations and subscribers—Average daily calls—Exchanges—New construction—Provincial telephone services—Post Offices—Carrying the mails—Parcel post—Gradual development—Money orders—Private letter-box holders—House deliveries—European mail delivery delays—Unsatisfactory shipping arrangements—The telegraphs—Continuity of service—Cable interruptions—Overhead crossings—The Central Economic Board—Services rendered.

THE telephones, like the telegraph and the posts, belong to the Government. No private enterprise has ever been permitted, nor, indeed, would it be desirable.

There is a telephone system installed in each of the five principal towns, and there are some 250 subscribers. Additionally, there are a few private circuits, while some of the Province Governors have their headquarters connected, for administrative purposes, with those important centres which are unprovided with a telegraph office. All wires are erected overhead.

All the exchanges are constructed by Ericsson on the magneto call system, and are said to be in satisfactory condition. The protection from heavy currents is however still inadequate, considering the scanty arrangements for guarding the wires at points in the town where electric light and telephone wires cross. Although there are only a comparatively few subscribers' circuits, there are a considerable number of telephones in use in Khartoum.

The reconstruction of the Port Sudan telephone system, consequent on the laying of the new 32-core cable across the harbour, has been for some time completed, and the exchange on the east side of the harbour has now been abandoned. The province telephone circuits connecting Wau and Meshra-

el-Rek and Bor and Sheikh Tombe have been a continuous source of trouble. This was, however, to be expected, as telephones in moist, tropical climates require much attention, and it is not considered justifiable to keep a man with suitable qualifications on the spot for the maintenance of merely two telephones.

Until recent times, the indoor staff employed in the Telegraph and Telephone Department were generally recruited from Egypt, while most of the Senior clerks are still of that nationality. But, and with a view to encouraging local ability, candidates for appointments under the Department are now recruited from pupils of Sudan schools. Candidates have to pass in by competition; but although care is exercised in making a selection, the material at hand is on the whole found somewhat inferior to that obtainable elsewhere. Taking into consideration, however, the fact that education in the Sudan is still in its infancy, and that but few of the candidates are the sons of educated parents or even those who have any knowledge of the English language, the results obtained may be deemed extraordinarily good. Little difficulty is found by the technical instructors of the Department in training the necessary staff, and the boy who has completed his fourth year in a Sudan Primary School may become an efficient operator after, say, one year's training in the Post and Telegraph School. The pay offered is fair, while the chance of promotion for those who evince any ability is good.

The work thrown upon the Post, Telegraph, and Telephone Departments has increased at the rate of between 25 and 40 per cent annually, and the staff necessarily has had to be maintained to satisfy this call for services.

Most residents in Khartoum and other parts of the Sudan rent postal-boxes at the head office, the charge for which accommodation is moderate. The authorities have instituted a house-to-house delivery, but in Khartoum, at least, the system has become unpopular, while the same objection seems to exist in Khartoum North and Omdurman. This may be attributable to some suspicion of its reliability, complaints having being lodged regarding the inefficiency

of the deliveries. The authorities declare that the majority of these grumbles "are entirely unjustified."

Where cause for dissatisfaction did unquestionably exist, however, was in relation to the delivery of the European mail correspondence *via* Alexandria; the connection was often being missed, with a corresponding loss of from three to four days of valuable time. The fault was in no way that of the post office authorities, who performed their part admirably enough; the blame lay with the steamship managements principally, and unfortunately they did not appear to be amenable to discipline or to be sufficiently penalised when they failed to perform their obligations. As the mails to the Sudan from Europe will hereafter increase in both volume and importance, serious notice of these frequently recurring delays had to be taken.

The telegraph system of the Sudan now comprises a total of about 5000 miles of poles and 10,000 miles of wire. A careful inspection is maintained, and on the whole the service may be pronounced satisfactory. Three different rates are in force—deferred, ordinary, and urgent. Deferred telegrams, although cheap, are not exactly expeditious; they are not delivered until forty-eight hours have elapsed from the time they are handed in at the office of origin. Urgent telegrams take precedence over the other two classes, with the right of special delivery at destination. Considering that certain officials are situated, perhaps, at a distance of 1000 miles and more from Khartoum, and that under the most favourable circumstances it would take anything between three and four weeks to reach them by post, the convenience of the telegraph wires can be appreciated.

The deferred message still retains its popularity; several Provincial Governors have also adopted the principle, action in the case of their telegrams as in that of public messages being deferred forty-eight hours. The whole principle, however, seems a poor one, the retention of the messages for forty-eight hours at the receiving station being undesirable and liable to abuse. Such an arrangement is not in operation in any other country, the message being

retained at the sender's end until it is convenient to the Telegraph Administration to despatch it.

Failures of cables, when they arise, generally originate at the shore-ends, which remain submerged for part of the year and are embedded in a very dry soil for the rest. When a fault occurs during the rise of the Nile, it is usually found impossible to gain access to it, as the cable is buried too deep to be moved.

How inconvenient such an occurrence can prove was clearly demonstrated in the month of August 1913, when, during an interruption in the working of the cable across the Blue Nile at Wad Medani, which connects Kassala with Khartoum, the alternative route *via* the land line connecting Kassala with Suakin was also disturbed, with the consequence that Kassala was severed for several days from the rest of the world.

A survey has been made of a route for a telegraph line along the east bank of the White Nile from Melut to Malakal, with a view to the diversion of the main line to that bank and to dispense with the cables at Melut and Malakal, thus improving the reliability of the service. There is little doubt that telegraph traffic with Central Africa will one day circulate to Europe *via* the Nile route; but before this can take place the line must be rendered immune from danger occasioned by the attacks of wild animals and grass fires, which greatly tend to its inefficiency.

It seems desirable that wherever it is possible cables should be replaced by overhead crossings. The maintenance of cables is always an extremely technical undertaking, and but few men possess the qualifications for finding and repairing faults. Sometimes a delay of six months may ensue when a very serious break occurs in the cables.

Varying conditions in the progress and prosperity of such public services as those of the post, telegraph, and telephone must be looked for in a country which has enjoyed the advantages of a civilised government for but twenty years. Although many of the post and telegraph offices in the Sudan may prove unremunerative, their maintenance

is imperatively necessary for administrative and military purposes, and correspondingly large staffs must be retained to serve them.

Each year has witnessed some fresh improvement in the general postal service of the country ; but upon the outbreak of the European War, while the inland services were continued uninterruptedly, the two overland services—one by the P. & O. and the other by the Austrian-Lloyd Express—were suspended, although the long sea-route of the P. & O. was maintained weekly with great regularity. The parcels and money-order services with foreign countries had also to be temporarily discontinued, with the exception of the ordinary parcels service to Great Britain. Normal conditions were soon afterwards restored, and have been since maintained.

Wireless telegraphy was installed for the first time in 1915. The sum of £5700 had been allotted in the previous year for the purpose of connecting Gambela, in Abyssinia, and the military station at Nasser, on the Sobat river, with the telegraph system at Malakal by the erection of three wireless stations. Unfortunately the war again interposed, and caused delay in the receipt of the necessary material from England. The situation is now ameliorating.

No greater amount of success has attended any department of the Sudan Government than that gained by the Commercial Intelligence Branch, Central Economic Board, constituted under Order No. 427 in June 1906. While its functions are purely consultative, its opinions and records prove of very great value in helping to develop the economic resources of the country. The members of the Board, of whom there are six, consider and investigate reports upon those questions in any way relating to economic and commercial products and development which are referred to them by the Governor-General, or which may be initiated by any individual member. Here, however, its functions end, for the members have no executive authority.

The Board—of which Colonel Sir E. E. Bernard, K.C.M.G., the Financial Secretary, has been the President since its inauguration—meets at such intervals as business requires.

Its members have included from time to time the Civil Secretary ; the General Manager of the Sudan Government Railways ; the Director of the Steamers Department ; the Director of Agriculture and Forests ; the Director of Education ; the Director of the Sudan Veterinary Department, and the Director of the Wellcome Tropical Research Laboratories, whose Research Chemist is an additional member of the Board. It has likewise its Secretary and its offices. The Board is affiliated with the Finance Department.

Perhaps the greatest of its services is the publication of an annual report, a voluminous and accurate compilation of the Sudan's trade and commerce. The price at which it can be obtained places within reach of all who are in any way interested in Sudan economics an invaluable handbook, than which, indeed, nothing could be better. The members of the Board, all of whom are officials of the Government, receive no extra payment for their attendance, the largest outlay being the salaries of the secretary and other members of the clerical staff.

CHAPTER VIII

Department of Justice—Present system of administration—The Civil Courts—Court of Appeal—The personnel—Provincial staff—The Mohammedan Courts—The people's love of litigation—Government attempt to cure the propensity—Bankruptcy laws and their defects—Abnormal number of commercial failures—Drastic remedies suggested—Creditors blamed—Police Magistrate's Court—Murder crimes—Provincial records—Characteristics of different tribes—Temperament of the Sudanese.

It was not until several years subsequent to the reconquest of the Sudan that the Administration were enabled to introduce a judicial system suitable to the requirements of the country. Gradually the work progressed, all details being left in the hands of Mr. (now Sir) E. Bonham Carter, K.C.M.G., who filled with great distinction the post of Legal Secretary from the year 1899 until succeeded by Mr. W. Sterry, formerly Chief Justice. The main defect experienced in the judicial system had been the insufficiency in the number of judges, and although this drawback has been considerably mitigated the glut of litigation still demands that the Legal Department should be further strengthened. In 1906 there were only six British judges; to-day, fourteen years later, there are five High Court Judges and eleven District Judges.

The Civil Court Bench consists of a Chief Judge, with duties mainly of a revisionary and consultative nature, who seldom sits in open court.

Until 1916 there had been no Court of Appeal consisting of more than one judge; the old system of allowing an appeal to be from one judge to another sitting alone had long proved unsatisfactory. Although, as Schiller has told us, "Nicht Stimmenmehrheit ist des Rechtes Probe" ("the

proof of justice lies not in the voice of the majority"), it is an established and commendable practice of British Courts to allow—and even to encourage—appeals to the consideration of several judges as against the decision of one. How much an efficient Court of Appeal has been needed in the Sudan may be judged from the fact that over one hundred petitions of appeal are lodged annually.

By an Ordinance bearing date March 30, 1915, there was established in the Sudan a High Court of Justice, consisting of (a) the Court of Appeal and (b) Courts of Original Jurisdiction. With the exception of such modifications as the Governor-General may prescribe, the Ordinance applies to the whole of the Sudan. The Civil Judges Ordinance 1901 and certain sections of the Ordinance of 1900 were at the same time repealed. The newly constituted court consists of the Chief Justice and such other judges as may be appointed from time to time by the Governor-General. It is stipulated that not fewer than one-half of their number must be barristers of the English or Irish Bar or Members of the Faculty of Advocates in Scotland of at least five years' standing. Provision has been made for the appointment of an Acting-Chief Judge in the event of necessity arising through the illness or absence of the Chief Justice and his precedence over all judges established.

The Court of Appeal consists ordinarily of not fewer than three members sitting together, but occasions may arise where the hearing of specified cases and proceedings take place before a number composed of fewer than three members of the Court. Due provision has been made for the differences of opinion that are bound to prevail among the members of the Court of Appeal upon points of law as well as upon those of evidence.

In the event of the Appeal Court being unable to arrive at an agreement as to judgment there are available three alternatives: (i) if there be a majority of one opinion, the opinion of that majority prevails; (ii) if the members are equally divided and the subject before them be a final appeal, then the appeal is dismissed, provided that, with the consent of the Chief Judge, the appeal, instead of being dis-

missed, may be referred to one or more of the judges of the High Court and such appeal decided according to the opinion of the majority of such judges who have heard the appeal and of the judge or judges to whom it has been referred ; (iii) if the members are equally divided in their opinion and the matter is interlocutory or other than the determination of a final appeal, the opinion of the Senior member of the Court prevails.

Considering the smallness of the official legal body, it is surprising to find how large is the amount of work performed in the course of the year. And this is quite apart from the immense quantity of litigation which is carried on in the Mohammedan Law Courts with the staff of a Grand Kadi, seventeen Naib Kadis, several inspectors, and a number of clerks and unclassified officials. Each province has its own Kadi and District Kadis, in addition to whom there is one Mufti.

The Mohammedan Law Courts have jurisdiction to deal with all suits between Mohammedans relating to marriage, divorce, guardianship, family relationship, succession, or the constitution of charitable endowments. Bearing in mind that a Mohammedan may have four wives at one time and can divorce them all at will, the subjects within the jurisdiction of these Courts give abundant scope for litigation.

The ordinary Mohammedan Law Courts in the Sudan form part of the Anglo-Egyptian Legal Department, and are judicially independent of the Executive. Their decisions are, nevertheless, liable to revision by the High Mohammedan Law Courts, and their work is subject to inspection by the Committee of Supervision. Administratively the Kadis and their officers are subordinate to the Legal Secretary, and he it is who decides all questions of discipline and general administration. The native judges are drawn from among the students at the Gordon College at Khartoum, and thence are drafted into the various courts. They receive a sound legal and religious training, especially in jurisprudence, attending special lectures upon the subject delivered by a Cairo Law School graduate. On the whole, under the close supervision of the Legal Department and

their own Grand Kadi, these young judges show great aptitude for their work, and prove an advance upon the ignorant and sometimes corrupt officials whom they have replaced. Indeed, it may be said with assurance that since the establishment of the present Government some excellent judges have been forthcoming. The late Grand Kadi, for instance, earned the esteem and the confidence of every one, and he served to lend distinction to any Bench. The decisions of the Mohammedan High Court are not subject to appeal.

The Sudanese, especially the Arab section, are naturally of a litigious disposition ; the large number of contested cases heard annually in the High Courts and in the various lower tribunals testify to the quarrelsome nature of the people.

One of the main factors that had militated against the commercial stability of the Sudan had been the unsatisfactory condition of the bankruptcy laws. Framed upon a too mild and an insufficiently elastic basis, these laws were not infrequently used as a shield by the dishonest trader, and as a refuge for the fraudulently inclined. In a newly emancipated country where commerce—such as it was—had been carried on for many years by a corrupt government, it became necessary for the new Administration of the Sudan, as may well be understood, to offer every encouragement to trade by the introduction of moderate or even benevolent legislation, and to foster the establishment of internal as well as over-seas commerce.

The conditions which were found to exist some twenty years ago fortunately no longer prevail ; it became necessary to revise and to reorganise the bankruptcy laws which govern the conduct of commerce and industry in the Sudan, since upon these are founded both the financial stability and the inherent good name of native traders.

As matters stood formerly merchants who failed one day were practically free to recommence trading the next. In Khartoum business circles it was considered in no way discreditable to become insolvent ; certain notorious debtors, who professed themselves unable to offer their creditors little more than a few shillings in the pound—even this

paltry payment being extended over a long period—were to be met driving in fashionable turn-outs, and known to have entered upon fresh commitments without showing a trace of hesitation or meeting with the slightest restrictions.

To a considerable extent the law was less to blame than the complaisant attitude of the creditors themselves; their disposition to accept from a bankrupt any kind of composition offered could not be too severely condemned. Such a policy was bound to result in encouraging lax commercial principles; to perpetuate this unsatisfactory method of trading would have meant the eventual boycotting of Khartoum merchants by foreign houses and the complete stoppage of their credit in the Sudan.

While the effect of the disastrous land speculations of 1907-1908 might still have been traced in this state of affairs, and while no doubt the bad harvests of several successive years, together with an unprecedentedly low Nile, proved important contributory factors, the main cause of depression had been the reckless trading carried on by certain local firms and their immediate flight to the protection of the bankruptcy court as soon as things began to look at all threatening for them. It was not a little significant that in the majority of bankruptcy cases the petitions were filed by the bankrupts themselves, the creditors having meanwhile learned nothing whatever of their unsound condition or impending surrender. This sort of commercial immorality had become far too frequent, and called for amendment. That was introduced in 1917.

The reformed Bankruptcy Law follows the Bankruptcy Law of the Egyptian Native Codes, which are themselves based on the Napoleonic Code. Sudan law, in its general principles, follows English practice, but in a more simplified form, and should do much to strengthen the hands of the Court and to improve the administration of bankruptcies.

One of the busiest of the Courts of Justice in the Sudan is that of the Police Magistrate at Khartoum.

Among crimes committed in the Sudan that of murder at one time appeared to have been the most common. The same thing had been found in Egypt, where the increase

in the number of such cases had been noticeable, during a succession of years, and the many outrages committed during the troubles of last year (1919) clearly proved that the savage element had not been overcome. It would appear that notwithstanding the better means for securing detection and the infliction of punishment, it is even yet found impossible to put down murder, which, in the Sudan particularly, frequently arises from jealousy or motives of revenge. The passing and the infliction of the death sentence seemed to have some deterrent effect ; but, like all Orientals, the Sudanese and the Egyptians entertain no great fear of death, while imprisonment carries no such stigma of disgrace as in the case of European countries. But for the fact that the Sudanese of the better tribes are a well-conditioned and good-natured people the number of murder crimes might conceivably amount to an appalling total, especially in the far-distant and seldom-visited districts of Mongalla, the Bahr-el-Ghazal, the Nuba Mountains, and other vast stretches of sparsely administered country.

CHAPTER IX

Prisons—Central and local penitentiaries—Recidivists—Punishments inflicted—Juvenile offenders—Tempering justice with mercy—Assisting the young criminal to lead an honest life—Success of Identification Bureau—Provincial penitentiaries—Kassala's model gaol—Dongola and its orderly residents—Long and short term prisoners—Warders and their duties—Their common faults and failings—The modern Suakin establishment—Military prisoners—Osman Digna in Halfa gaol—A dark and cruel career.

AT the time that the Sudan came under the present Administration the prisons were found in a deplorable condition—one of the several relics of barbarism bequeathed by the Mahdists. It needed both care and time to effect remedial measures, and even as late as 1905, when the present prison system was introduced, there remained considerable cause for complaint. Many hard cases existed, and the prisoners, for the most part being indifferent to their lot and unused to having their complaints noticed—still less officially investigated—accepted their miserable lot without demur; thus the authorities, anxious though they were to effect remedies and to carry out acts of reparation or revision in connection with cases whenever they came before them, were powerless on account of the absence of evidence.

The Sudan prisons are of two classes, the Central and the Local. The principal gaol is the Central Prison at Khartoum North, which compares favourably with any Egyptian prison, or, indeed, with that of any European city. There are European and native portions, with a number of cells in each for solitary confinement cases.

The prisoners—both male and female—are divided into categories of first and second class. In the first-named the prisoners wear chains; in the second, the convicts, while

undergoing a sufficiently strict régime, are afforded more liberty within the walls of the prison.

The worst kind of gaol-bird is the recidivist, who comes mostly from Khartoum town and the suburbs, and proves absolutely incorrigible. To deal with this class of criminal effectively proves somewhat difficult; the only way that has proved at all beneficial is to keep the convicts on as little food as possible, their dieting being reduced to a minimum consistent with good health, and affording sufficient physical strength to perform the labour required of them. That no unnecessary hardships in this respect shall exist the medical supervision is very closely attended to.

The daily food given to the irreconcilable and incurable prisoners consists of a portion of 200 dirhem—10 oz. practically—of *kisra*, a native bread made from the *dura* grain—and every second day 6 dirhem of butter, 25 of meat, 45 of vegetables, and 5 of salt. It will be recognised that no prisoner thus provided need starve.

The work which the convicts are called upon to perform is of the most arduous description, and the prisoners are kept at it consistently. To distinguish them from other prisoners they are made to wear black clothing and heavy chains. They must sleep apart, and are allowed none of the privileges of conditional release. This would appear to be the only manner in which to treat habitual criminals, but, severe as it is, unfortunately with some cases it has completely failed. Criminals of this kind are the despair at once of the official and of the humanist.

On the other hand, if a prisoner shows any disposition to moral reform and good conduct during his term of punishment, the treatment is more lenient. The prisoners serving terms of six months and longer are either employed upon unskilled labour, such as public-road making, water-carrying, or filling in the foreshore of the river, or they are taught useful industries, including tailoring, carpentry, laundry-work, brick-making, brush- and rope-making, rope-sole and leather work, and other labour of a similar kind. Not only does this class of employment help to fit the convicts to gain an honest livelihood upon leaving prison, but they

receive a portion of the profits earned by the prison shops, and upon their discharge the amounts credited to them sometimes assume appreciable proportions. About 10 per cent of the profits is distributed in this manner, according to the degree of skill of the workman and his industry. The plan undoubtedly increases the efficiency of the convicts since it serves them as an incentive to try to excel in their work. Many of the prisoners upon admission, however, are found to be beyond the stage of acquiring a trade, while others are too lazy or too indifferent to try to do so. One is here reminded of the adage, "You cannot teach old dogs new tricks."

Special care is devoted to the treatment of juvenile prisoners. For minor offences a mild kind of flogging is administered, much too mild in the opinion of those who have seen the punishment carried out, and who may happen to know something of the young culprits concerned. Khartoum and other large towns swarm with mischievous but not necessarily evilly-dispositioned boys who, unless taken in hand early, may become dangerous criminals for the lack of honest employment or supervision.

In prison the youths are confined in a separate room, entirely removed from other inmates, while a special warder is placed in charge of them. Thus all contact with older criminals — while under confinement — is prevented. The boys are made to attend two hours' school in the mornings and to receive some useful trade instruction in the afternoons. Drill and physical exercise, imparted by a competent instructor, further help the lads to become healthy and respectable members of the community. They also are well fed, receiving, indeed, practically the same quantity and quality of rations as full-grown men, the only reduction being in the amount of bread served out.

What becomes of the hopelessly bad boys in after life? Obviously the authorities cannot do more than care for their physical and moral condition so long as they remain under the prison roof; once they have gone forth from this protection they are free to pursue whatever career they may choose. 'Generally speaking, the lads have no homes,

and parents do not welcome them on their return from prison. The Government cannot stand *in loco parentis*, although every assistance to obtain honest and permanent employment for the time-expired juveniles is rendered when required. If somewhat less marked in the Sudan than in other countries, the taint of the prison still acts prejudicially among the general public, and undoubtedly handicaps an applicant for respectable employment if his career should become known.

The Identification Bureau, created in connection with the Central Prisons Establishment, has proved an extremely useful innovation. Officials are here instructed in the taking of finger-prints and the annotation of marks on criminals, a study which has served upon many occasions to establish identity when necessary in different parts of the country. The department is well conducted, and every day is becoming more proficient and, as a consequence, more valuable. Including the prisons at Khartoum and Port Sudan, the Headquarters and Identification Bureau, the total cost to the Government for prison maintenance, etc., amounts to a considerable sum per annum.

The existing buildings of provincial prisons, with but few exceptions, may be considered as sufficient. In the Bahr-el-Ghazal the central gaol is located at Wau, the capital. Here all prisoners sentenced to more than twelve months are received, since, owing to the great distance of some of the out-stations and the impassability of the roads during several months of the year, it is practically impossible to "commit" prisoners receiving shorter sentences. The Wad Medani (Blue Nile Province) prison is too small for the purpose, the inmates enjoying but one-half of the cubic air space which the medical authorities consider necessary. Nevertheless the prison is maintained in a scrupulously clean and healthful condition, and the occupants appear positively cheerful.

The Dongola (Province) prison ranks among the more roomy and best-conducted of the penal establishments, and its inmates seem to change little numerically. In the province prison at the time of my visit there were but ten men

and no women confined there, while only two men had been sent to Khartoum Central Prison to serve long sentences.

The prison of Kassala is perhaps the best constructed of all the provincial penitentiaries. It occupies, moreover, a healthful position. If one can imagine prisoners—many of whom are undergoing long terms of incarceration—looking “happy and contented,” this term assuredly applies to the Kassala gaol inmates. They are mainly employed upon useful work, such as levelling ground, filling in holes, and carrying out general structural improvements to the town. A smaller gaol, situated at Gedaref, in the same province, is maintained in an equally sound condition.

The prison at Suakin in use at present is a small building, but found adequate for all local requirements. That at Port Sudan (the harbour and port of the Sudan), and also situated in the Red Sea Province, is a large and commodious structure, somewhat similar to the main convict prison at Khartoum, which it is intended—if necessary—to supplement. The gaol at Tokar is also new and more roomy.

There is need for a more capacious gaol at El Obeid, in Kordofan, on account of the increasing number of persons convicted in connection with disturbances among the troublesome Nuba tribes.

Improved accommodation for prisoners is no less urgently needed in the provinces of Sennar and Nuba Mountains, where the only buildings available as gaols are constructed of mud brick, and prove neither large enough nor altogether sanitary. The local authorities are by no means oblivious of these facts.

Local prisons are usually occupied by short-sentence criminals, that is to say, those serving six months and under. This is, however, not invariably the case, for in some towns the local gaols contain both short- and long-term prisoners. Much depends upon the amount of accommodation available and the distance of the town from the capital.

One of the many difficult tasks set the prison authorities has been the selection of suitable and trustworthy warders. The men, for the most part, have been selected from the

army, but on the whole they have not proved satisfactory, having occasioned much trouble on account of their inability to maintain discipline and their propensity to accept bribes from the prisoners or their friends, in return for special privileges, such as extra food introduced surreptitiously into the prison. Moreover, the warders have been rather too old, having passed the age for rendering the best service.

The most common fault prevailing is that of assisting prisoners to obtain forbidden articles, mostly tobacco. But this is customary in other convict establishments, even the most strictly controlled. It seems absolutely impossible to prevent smuggling of this kind, but all cases, when they can be discovered, are severely dealt with.

A new system introduced recently has called for younger and specially recruited men, and has been found to answer well. Fewer black sheep are met with, while the rate of pay being higher a superior class of officer is obtained.

Flogging as a punishment, although carried out occasionally, is less common than was the case, say, fifteen years ago. It would be impracticable to abandon this form of punishment entirely, or even further to reduce it, since it appears to be the only kind of correction that the habitual and hardened criminal understands and dreads; indeed it is feared much more than solitary confinement.

The severest punishment inflicted in the Anglo-Egyptian Sudan, apart from the death sentence, is that of imprisonment for life. The proportion of such sentences, happily, is small, the majority of the awards being from two to five years, while sentences of imprisonment for terms ranging between one and two years are also common. Others may range between six months and one year, between five and ten years, between ten and fifteen years, and some extend over twenty years. Releases and discharges are conditional upon good conduct or medical recommendation, while escapes from prison have become now very rare. Formerly they were extremely common. The number of prisoners who die while performing their sentences is also very small, while the total of those who are pardoned is

inconsiderable. The proportion of female to male prisoners may be put at 12 to 500, or, say, about $2\frac{1}{2}$ per cent.

Military prisoners are not confined in the Central Prison at Khartoum, as are other long-term malefactors; they are sent to the Suakin Central Gaol and to various out-stations. At the latter there are found now but few military felons, and they have only short sentences to serve. The more serious cases are sent to the Military Prison at Khartoum or Omdurman, the culprits being confined in separate cells and not allowed to mingle with the other occupants of the Central Gaol.

There is yet another class of prisoner occasionally to be met with in the Sudan—the political offender. To the very few captives in this category both kindness and consideration, compatible with conserving the public safety, are shown. The purpose of the Sudan Government, like that of all high-minded administrations, has been to use the prison as a place of detention rather than a place of punishment; in the case of political prisoners, "punishment," as the word is generally understood, is not thought of. How different indeed is the procedure of the present Sudan Government from that of its predecessors, say that of the Mahdists, among whom political offences were considered more serious, being punished with more brutality than any other kind of crime.

A striking commentary is offered by the circumstance that the few political prisoners held by the Anglo-Egyptian Government at any time have been men who, when free and in power, had been guilty of shocking excesses towards their unfortunate captives—especially if these had been convicted—or even suspected—of any political transgressions. One is reminded in this connection of Fouché's famous saying, "It was more than a crime; it was a political fault."

The most important political prisoner still living in confinement in the Sudan is Osman Digna, a chieftain who for some time was an Emir of the Mahdi, and held practically the whole of the Eastern Sudan under his brutal control.

Osman Digna had been formerly a notorious slave-dealer at Suakin, and long bore a terrible reputation for cruelty and

utter unscrupulousness in his methods. He was regarded, indeed, as the "Zubeir"¹ of the Eastern Sudan. He became one of the most energetic and indefatigable of the Mahdi's various agents, being furnished with exceptional authority, of which he made the most daring use. It was this same Digna who inflicted the signal defeat on Baker Pasha at El Teb, near Tokar, in February 1884, even while Gordon was on his way to Khartoum; and, again, it was he who continually harried the troops of the last Nile Expedition for months before the decisive battle of Atbara was fought and won on April 8, 1898. After that Osman Digna effected his escape.

This savage, however, could not remain loyal even to his former associates, for he both deceived and deserted Mahmoud Ali Ahmed, with whom he was supposed to be co-operating, and it is worthy of note that that chief attributed his defeat at the hands of the Sirdar—Kitchener—mainly to the defection of Osman Digna, who had deserted with the cavalry. It seems to have been another instance of certain benefits arising from the falling-out of thieves.

Osman Digna has now been held a close prisoner at Wady Halfa for many years, indeed since he was captured, a fugitive, in the Wariba Hills in January 1900. He is now an old man, but he maintains, as ever, a dogged, sullen silence, refusing to converse with any one, or even to solicit his release at the hands of the Government. He probably recognises that the day of his liberty would also prove the day of his death, for the numerous barbarities practised while still a powerful emir were such as to occasion the most intense and lasting popular hatred. Even to-day, when most of the harrowing incidents of the Mahdi epoch are becoming mellowed by time, Digna's deeds of blood and torture are remembered, and no doubt they would be avenged the moment the populace knew that he was free and that at last they could lay hands upon their once dreaded persecutor. Thus Osman Digna is watching the

¹ Zubeir Pasha was a notorious slave-dealer who conquered immense territories in the northern districts of the Bahr-el-Ghazal, and became a terror to the inhabitants.

sands of his glass falling, falling. Left to the gloomy and horrifying reflections upon his past misdeeds, his lot must be a most unenviable one ; yet a wholly insufficient punishment for one of the most merciless and savage of human scourges.

CHAPTER X

System of taxation—Egyptian methods of old—Modern measures—An equitable scale fairly proportioned—Principal taxes in force—Land (or "Ushur") tax—Date tax—Animal and boat dues—Native tribute—The trader's tax—Native objections—Fairness of the imposition—Easy rates in force—Small profits exempted—Methods of tax collection—Unpopular features—Protests by trading community—Assessment Boards—Encouraging commercial book-keeping.

It has been truly said that the corner-stone of the political edifice which has been built up with so much care in the Sudan—as in Egypt—has been low taxation. The officials who, with tact and experience, helped to frame the new regulations which accompanied the introduction of British rule into the Sudan, thoroughly understood the necessity of treating the Moslem population with fairness and even with leniency regarding the levying of contributions for the carrying-on of government; they knew that while taxation of some kind became inevitable, disaster, certain and speedy, awaited the introduction of any severe imposition upon an already cruelly impoverished people.

It is easy to understand how, with even the best intentions in the world, a new administration, without some knowledge of the people entrusted to their care, might bring ruin to the cause of civilisation and pacification. Imbued, as some British officials are, with ideas prevalent in practically every Western land, whose governments have for years sought to reach the utmost taxable capacity of nearly every class of their respective communities, it is certain that, had they followed a similar policy in the Sudan, the administration would have met with failure. The Sudanese people, especially those of the commercial classes, had remained for twenty years victims of Mahdist rapacity, while, previously, they had been sucked dry by the ravaging Turk and

Egyptian. Those among the residents who still retained any property were taxed out of all proportion to its value ; they suffered terrible oppression and tyranny at the hands of the tax-gatherers, who swarmed in a country which they afflicted like a pestilence. To offer to these unfortunate people a new and more merciful mode of exaction meant at once the gaining of their confidence, for the Orientals infinitely prefer a form of light taxation to the bestowal of European gifts of " progress " which they neither understand nor appreciate.

Taxation in the Sudan is no more popular than is taxation elsewhere :

Whoever hopes a faultless tax to see,
Hopes what ne'er was, is not, and ne'er shall be.

But with the development of an economic Sudan, taxation became an obligation—a duty. The time has happily gone by for the Sudanese when the Government, as in the days of the Egyptian Governors-General—such as Osman Bey (1825), Ismail Pasha Abu Jebel (1852), Hassan Bey (1859), and Raouf Pasha (1879)—simply increased the taxes whenever they found it necessary to remit to their ever-exacting " overlord," the Khedive of Egypt. Ismail Pasha Ayub in one year (1873) sent to the Khedive £100,000 in hard dollars which he had wrung from the unfortunate Sudanese peasantry, who must have lost an equal amount in the pillage that accompanied the collection. Such a proceeding would have horrified Adam Smith, whose four maxims with regard to taxation—equality, certainty, convenience, and economy—were utterly disregarded by the Egyptian robbers who levied the tax and stole most of the proceeds.

The average Sudanese knows that the governing authority renders to him, the individual, specific services for which he has to pay from his available means, that payment being made out of a levy, in the form of tributes, and upon the value of his fixed property, such as his land, date-palms, cattle, sheep, goats, camels, etc. ; and upon his earnings in the field ; or as a trader, a shopkeeper, or a craftsman. He receives in exchange defence, education, police, post-office and telegraph service, and, what is so

dear to his litigious disposition, the administration of justice. As yet it has not obtained for him a separate political talking-shop, although even that may come to him in time as it has come to his neighbour the Egyptian.

The taxes which most affect the natives of the Sudan are: (1) the land or "ushur" tax, (2) the date tax, (3) the animal tax, (4) the road tax, (5) the house tax, (6) the trader's tax, (7) the boat tax, and (8) the tribute from nomad tribes. The imposts such as customs and royalties affect the natives only indirectly, but they feel to some extent the additional taxes placed upon stamped paper (all petitions, which the natives are very fond of presenting upon every possible occasion, must be written upon stamped paper), ferries, licences, market dues, slaughtering fees, and court fees.

The Land Tax, or "Ushur," represents a tenth part of the products of the land, and is paid sometimes in kind, but usually in cash. The tax is assessed on the extent and value of the irrigated land. It varies from 10 piastres (2s.) to 60 piastres (12s.) per feddân—about 1 acre. Rain-lands pay less than irrigated lands, while those only recently put under cultivation pay less than those already cultivated.

Although the terms "Land Tax" and "Ushur" are employed reciprocally, there is really a distinction. "Land Tax" is levied at fixed rates varying between 10 and 60 piastres upon land which is artificially irrigated or irrigated by the rise and fall of the river Nile. Land which is watered by rainfall cannot be taxed in this manner, since the area watered varies considerably from year to year, while the crop produced also fluctuates according to the extent of the rainfall. The method adopted for taxing such land is therefore to take the value of one-tenth of the crop in money or sometimes one-tenth in kind. The "Ushur" is an old Mohammedan form of taxation, well understood by the people of the Sudan.

The Date Tax is levied on date-palms at the rate of 2 piastres (5d.) per annum per tree bearing fruit. This cannot be considered an excessive impost when it is remembered that the average return from the date-palm is about ten shillings per annum in fruit alone from each tree, while

in exceptionally good years the value in dates may amount to £E1 and even more. In addition to this, the tree is useful in many ways to its owner or owners (for a date-palm may belong conjointly to two or more people). For instance, with its leaves the owner thatches his hut, and makes rope and matting; the footstalks supply him with fuel and provide a fibre from which cordage is spun; while the trunk of a dead tree, or one which has become barren, is used in the construction of a *sakia* or *shaduf*.

The Animal Tax is levied upon camels, mules, sheep, horses, and cattle at various rates.

The Road Tax is light, being levied only in certain places with the object of keeping the roads open and safe, and the wells dug and in good order.

The House Tax amounts to one-twelfth of the annual rental of buildings.

The Boat Tax amounts to 2 piastres (5d.) per ardeb (2·2 lbs.) of capacity.

The tribute from tribes is levied upon nomads who own no lands and who are not agriculturists. The Governor of the province makes the assessment, and decides the amount broadly upon the value of the tribes' possessions in flocks and herds and other property.

In addition to the direct taxation mentioned—*direct* taxes being on persons and necessities, and *indirect* on luxuries and raw materials—there are levied fixed royalties such as those upon gum, ivory, ostrich feathers, india-rubber (the trade in rubber at present is entirely prohibited), senna and dom palm fruit.

When in March 1913 the Government promulgated the "Trader's Tax Ordinance," with its five-and-twenty provisions, some feeling of dissatisfaction was occasioned, especially among the class which had hitherto done remarkably well for themselves and could best afford to meet the new imposition. No Government, however complaisant or reasonable, could hope to convince an entire community that taxation is necessary at all, and a tax upon profits above everything else seems to affect the contributors the most acutely. One, might expect them to accept the

consolation that they are asked to give up something to the Government only when they themselves are prospering, *i.e.* making profits; if they realise no profits they are not expected to pay anything. This reasoning, however, seems to affect them but little, for, as stated, an outcry occurred in the Sudan, particularly in Khartoum, at the time that the Trader's Tax was instituted. And yet, when analysed, it proved not only a reasonable but a decidedly moderate tax, in its fairness similar to the Excess Profits Duty in this country.

It must have appeared obvious that as the Sudan Government in 1913 was destined to find its revenue short of some £E78,000,¹ on account of having relinquished the full amount of the Egyptian subvention, the deficiency would have to be made up somehow and from somewhere. In what direction other than that in which trade profits were being made could the Government have looked? It is true that the term "trader's profits" has been officially construed somewhat widely, embracing, as it does, wholesale and retail trades and every form of manufactory, agency, catering, hotel-keeping, etc. etc. There is, however, one exemption, mentioned in clause 7, which frees from liability the profits of the cultivator, that is the Sudan peasant.

The scheme, setting forth the class, assessed annual profits, and the amount of tax payable, is as follows :

Class.	Assessed Annual Profits.		Tax Payable.
	£E.	£E.	
10		24 to 36	P.T.50
9	Above	36 " 66	£E1 -
8	"	66 " 100	2
7	"	100 " 150	3
6	"	150 " 200	5
5	"	200 " 300	8
4	"	300 " 400	12
3	"	400 " 500	16
2	"	500 " 600	20
1	"	600	£E4 for every complete £E100 of profits

¹ The amount of the surrendered Egyptian subsidy represented a sum of £E163,000, off-set against which the Sudan received £85,000 on account of customs dues, so that the net deficiency amounted to £E78,000.

It will be seen that while very small profits are entirely exempt, in no case does the rate of taxation exceed 4 per cent, which cannot be considered a very onerous burden, and which may be compared with the burdensome tax upon incomes in Great Britain. There are, moreover, certain exemptions from this moderate imposition, such as (a) agricultural profits, (b) mining leases, (c) rent obtained from land or buildings; while, under para. 25, the Financial Secretary may from time to time, with the written consent of the Governor-General, exempt any portion of the Sudan or any person or classes of persons from the operation of the Ordinance.

Those critics who have taken exception to the fact that agricultural profits are freed while other trades are taxed have apparently lost sight of the fundamental principle of the clause. The cultivator is exempted not with the idea that he should be immune from taxation, but precisely for the reason that he already pays land tax and the cost of watering his land, and without such provision for his exemption from the operation of the Trader's Tax he would be paying twice over. One could imagine the indignation of the cultivator under such circumstances; then would he be justified, indeed, in quoting the Hindu proverb:

The tax! No wonder men abhor it!
We raise a crop; they fine us for it.

Before the introduction of the Trader's Tax, cultivators, cattle-owners, and nomadic tribes already bore a share of taxation, and it was deemed to be only fair that the trading members of the community should also shoulder a portion of the cost of administration. The effect of the new Ordinance, therefore, has been not to tax traders and exempt cultivators, but merely to extend the machinery of taxation to traders and cultivators alike.

The trading community, who had hitherto paid **nothing**, were invited to bear in mind that in recent years it has **been** the constant endeavour of the Government to assist in developing and promoting trade in the Sudan by constructing new railway lines, employing additional steamers,

and extending posts, telegraphs, and telephones. All of these enterprises cost money, and it is the trading community which has mainly benefited by such expenditure. The duty of the commercial community to assist and to encourage rather than to criticise and oppose the Government in the performance of as difficult and responsible a task as any with which it has been faced hitherto, is obvious.

But there has been an objection not only to the tax itself, but to the manner in which it is collected; here again it would be difficult to suggest how else the Government could have set about putting into motion the elaborate machinery which they had instituted for the collection of the tax.

According to the terms of the Ordinance, the Governor of each province must divide his territory into assessment-areas, appointing for each of these areas an Assessment Board to consist of an Inspector and one other Government official. Further, two local traders must sit with the officials as advisers. These four classify and assess all persons liable to the tax in classes according to the schedule already given, and "corresponding with the annual profits accruing to or received by them . . . within the Sudan, from their trade."

The Assessment Board may meet annually—after the 1st of January, which is a kind of "joy-month" on account of the number of national events which are then celebrated—notice being given to all persons concerned, and not already on the list, to send, *inter alia*, a declaration of profits made within the past year, and to appear personally before the Board at the time that their cases are being considered. No person is compelled to send in any declaration nor yet to appear personally, if he does not wish to do so; but in that case the Board proceeds to make the assessment without the declaration and in the absence of the parties.

How, it will be asked, can the Board make a fair assessment, or any assessment at all, without having before it the necessary materials, which materials alone can be furnished by the parties assessed? Obviously, it has, been intended

to induce the traders to furnish the Board with a clear and true statement of the profits made, or as near the truth as they can bring themselves to make it ; to do this it is necessary to show some kind of accounts, and it is just here that the Sudanese traders are at fault, for they rarely keep accounts, except in their heads, and if they did it may be taken for granted that they would not be correct.

The Government has recognised the fact that book-keeping is not generally appreciated in the Sudan, and, accordingly, steps have been taken to ensure that merchants who do not keep books shall not be penalised by unduly high taxation. It is, however, probable in some cases that the assessment of profits will prove excessive, and quite certainly the trouble occasioned in making it will be considerable. It is in every way to the advantage of the trader, therefore, that he should assist the Board by rendering a statement for their guidance.

One of the aims of the Ordinance is said to be to encourage traders to keep a proper set of books ; and if the tax succeeds in this, thereby promoting a more general use of book-keeping, its introduction will have been amply justified.

One of the most serious objections to the tax has been the threat of punishment which has been held over the heads of those who make false returns. In this respect, however, the clause is not one whit more offensive or more menacing than the form of Income Tax used in Great Britain.

Any appeal must conclude with a declaration that the petitioner believes his statement to be true, " being aware that the making of false statements is punishable with imprisonment and fine (under Section 142 of the Sudan Penal Code)." Where books are kept, certified profit and loss accounts must be sent in with the petition.

CHAPTER XI

Customs—Trade in Mahdi times—Improvement since British occupation—Comparative figures, 1906-18—Imports, exports, and re-exports—Great Britain's share of trade—Principal articles of import—Cotton fabrics—Flour, sugar, and tea—Egypt's large trade—Exports and their destinations—Trade with North America—Customs dues—Rates—Transit trade—Important but unremunerative—Receipts from customs dues—Cost of their administration—Khartoum revenues—Frontier ports—The Moghreh Quays—Imports into Port Sudan—Trade in *hashish* contraband.

AT the time that the British troops finally rescued the Sudan from the bane of Mahdism—that is to say, in 1898-99—the country possessed no legitimate trade whatever; the barbarous rule under which it had groaned for some fifteen years had effectively killed all trade and most of the traders—all, that is to say, but the slave-dealers and the ivory hunters. The value put upon the trade carried on in both white ivory and in “black” during 1883 was £E2,000,000. Dongola Province alone paid its way, while the neighbouring Sultanate of Darfur carried on a certain kind of commerce—also consisting mainly of slaves and ivory.

Before the revolt of the Mahdi, Khartoum had been the centre of a large trade, and ranked as the most flourishing commercial city in Africa south of Cairo, with a population estimated at 70,000 in 1884.

Gradually, under the new and happier auspices inaugurated in the reoccupation, the trade of the country commenced to revive, for the people are peculiarly mercurial in disposition, and as easily encouraged as they are quickly depressed.

How the commerce of the Sudan has grown since 1907

may be best appreciated by glancing at the comparative table given below, showing the exports and the imports :

	Exports.	Imports.
	£E.	£E.
1907	449,329	1,604,137
1908	515,938	1,802,798
1909	673,902	1,775,957
1910	997,621	1,931,426
1911	1,376,958	2,273,949
1912	1,373,119	1,967,429
1913	1,185,186	2,109,476
1914	1,020,260	1,891,494
1915	1,577,991	1,704,250
1916	2,888,403	2,661,468
1917	3,490,565	3,102,117
1918	3,923,771	4,024,582

The internal trade in the Sudan shows a steady, if not a sensational, improvement, and proves conclusively that even in admittedly "bad times," such as those experienced during the years 1911, 1912, and 1913, the general proportions of trade suffered but a comparatively small shrinkage.

If one may judge from the results of the first three months' trade in the Sudan for the current year (1920), the total value of merchandise imported and exported will show a remarkable advance. For the first quarter of 1920 the imports amounted to £E1,631,168, an increase of £E623,458, or 62 per cent, above those for a similar period in 1919. The exports from the Sudan for the first quarter of the current year amounted to £E1,548,332, an increase of £E813,600, or nearly 111 per cent, above those of the corresponding quarter of 1919.

In the Sudan the question of supply and demand during the year depends very largely upon the ability of the Government to incur the capital expenditure necessary to carry out schemes of development, so that the statistics given relative to imports have no direct bearing on the economic conditions of the country's trade. In regard to exports, again, more accurate deductions can be drawn.

The proportion of the imports into the Sudan allotted to Great Britain, upon an average over a full decade, amounts

to between 40 and 45 per cent, Egypt coming next with 23·6, while India and Aden rank third with a proportion of 18·5. In regard to exports, Great Britain occupies second place, Egypt standing first with a proportion of 74 per cent.

The external or export trade of the Sudan affords a no less interesting comparison in regard to the character of articles dealt in. These are found under numerous heads : animals and animal products ; hides, skins, leather, and leather goods ; and cereals, vegetables, flour, and agricultural products ; proving that, under favourable circumstances, the Sudan is not only independent of food-stuffs from Egypt or from abroad, but can upon demand supply them from her own superfluous stores.

The importance of the Sudan's agricultural products trade is considerable.

The Sudan's exports to and imports from the United Kingdom for the three years 1916-1918 were as follows :

	1916.	1917.	1918.
EXPORTS .	£2,288,403	£3,490,565	£3,923,771
IMPORTS .	£425,883	£270,636	£180,317

According to the agreement drawn up between the British Government and the Government of the ex-Khedive, January 19, 1899, goods entering the Sudan from Egypt pay no import duty, goods coming from other territory being alone called upon to meet customs dues.

A considerable transit trade is carried on, and forms an important factor in the economic development of the country, since it has a beneficial effect on the revenues of the railway and steamboats as well as the banking and other agency businesses, even if it adds little to the Government revenues.

The customs receipts collected at Khartoum are derived from royalties, parcel post assessments, and goods in transit from those countries using the Sudan as a medium of communication. There are also 12 frontier posts, grouped as follows :

Kassala Province : Kassala, Gedaref, and Gallabat.
 Sennar Province : Roseires and Kurmok.
 Mongalla Province : Mongalla.
 Gambela.

For the purposes of classification the frontier trade is divided into five categories, namely :

Imports.—Imports from interior countries. *Transit* (outwards) : Introduced from interior countries for passing in transit through the Sudan for shipment abroad by sea.

Exports.—Exports of Sudan produce to interior countries. *Re-exports* : Of foreign produce ; and *Transit* (inwards) : goods passing through the Sudan in transit to interior countries.

At the time that the Lado Enclave was added to the Sudan territories and final arrangements were completed (January 1, 1914), two new frontier posts were established, but owing to the prevalence of sleeping sickness nothing in the way of trade worth speaking of has been possible. The general business conducted at the Sudan frontier posts is normally small, but, on the other hand, the posts have been found useful in furthering transit operations and, to some extent, in enforcing the sleeping sickness regulations. Considering how limited is the amount of the present revenue arising from the frontier customs stations, it speaks well for the economy with which they are maintained that they are found actually to yield a few thousand pounds annually in excess of their cost of upkeep.

The most promising post is that at Gambela on the Abyssinian frontier—in fact it is *in* Abyssinian territory. The amount of goods exchanged is continually increasing, and the monthly customs receipts, which are equally divided between the Sudan and Abyssinia, showed an advance of some 300 per cent in recent times. But for the rascality which prevails among the Abyssinian officials, who practise endless exactions and extortions, the returns would doubtless prove a great deal more satisfactory.

Commercial relations between the two countries have advanced appreciably since the opening of a small Commercial Department market at Dunkur, in north-western Abyssinia, and the appointment of Mr. C. H. Armbruster (formerly H.B.M. Consul for north-western Abyssinia) as travelling inspector along the whole Abyssinian frontier, and now Director of Customs at Khartoum. A great development might attend the trade carried on in rubber, coffee, hides,

and wax, but political affairs upon the Abyssinian frontier line must become more settled and security of property more assured, before this consummation can be achieved.

A large amount of trade and traffic proceeds quietly at Khartoum, which serves the purpose of a clearing-house for transit cargo passing inwards and outwards, and as an assessing station for the royalties collected upon such articles as gum, ivory, etc., as well as upon everything coming into the country by parcel post. A visit to the Moghreh Quays convinces one of the movement in progress, especially in regard to the heavy consignments of coffee—about 1200 tons arrive during the summer months—hides, wax, and rubber coming to Khartoum from Gambela (Abyssinia), all river-borne. The arrangements for handling this latter cargo at the quays are very complete, and the Government has greatly facilitated expedition by permitting goods to be shipped from up-country stations under guarantee and subject to payment of the duties at Khartoum when the goods are cleared. Thus immediate delivery of goods is obtained, and much time saved to the consignees as well as expense in the way of warehousing and one or more handlings by porters.

The Moghreh Quays are equipped with modern machinery, including a fine crane which by now should have been paid for several times over, since a substantial charge is levied upon every case which it lifts, and at the rate of about 1 ton per sling the crane is thoroughly justifying its introduction.

Coal is "handled" by a mechanical transporter, about 30 tons per hour being the average disposed of. A bridge conveyer is also a thoroughly satisfactory piece of modern machinery now in operation, maintaining an average of 96 tons of coal per hour. Work proceeds practically all day and during a great part of the night upon occasions, as those residents who live near the busy quays would be prepared to testify. The native drivers are mainly a competent and an industrious class of workers, comparing quite favourably with any to be found in Europe.

Previous to Port Sudan coming into existence, that is to say in 1911, Suakin was the only Red Sea port of entry into the Sudan—Trinkitat, 50 miles distant from Port

Sudan, hardly counting. The value of British merchandise imported, exported, re-exported, or in transit at Port Sudan increased from 248,833 tons in 1907 to 646,266 tons in 1915. The total international tonnage of shipping at Port Sudan advanced from 312,770 tons in 1907 to 797,278 tons in 1914 (the year of the war), since which date it steadily declined to 429,138 tons in 1917. It has since shown signs of marked recovery.

In February 1914 the Customs Ordinance of 1905 was repealed, all laws, decrees, and regulations of the Egyptian Government relating to customs up till then in force in the Sudan ceasing to have effect. A new Ordinance was issued containing many important alterations, and these should be studied with great care, not alone by those carrying on commerce in the Sudan but by travellers and sportsmen who may proceed thither upon pleasure bent.

Just as gun-running is carried on continually along the wide Abyssinian frontier, a stretch most difficult to patrol efficiently, so the smuggling of *hashish* proceeds merrily. The illicit trade is carried on principally between Suez and Port Sudan, and this, notwithstanding the risks which are run and the heavy penalties exacted upon conviction, must prove very lucrative. *Hashish* is a narcotic drug prepared from the gum extracted from Indian hemp, and sometimes used for smoking by the Arabs. It is also made into a beverage called *bhang* in India; whether it be smoked or imbibed, the effect produced is distinctly more detrimental and demoralising than that of opium, often resulting in a maniacal condition. The utmost difficulty is experienced in catching the smugglers *in flagrante delicto*. The coastguard officials, being natives, are not by any means as watchful and alert as they might be, consequently many consignments of the drug are successfully landed, and as often as not under the noses of the officials. The worst offenders are found among Egyptians and Berbers, who carry on their smuggling *via* the Nile. In the Sudan its use is prohibited under heavy penalties.

CHAPTER XII

Military administrators as financiers—Egyptian financial advisers—Financial conditions anterior to British conquest—General Gordon as a financier—Budgetary deficits—Revenue in 1898—Financial relations between Egypt and the Sudan—Annual contributions since 1899—Repayment to Egypt—Benefits attaching to Egypt—Unusual account-keeping—Cessation of Egypt's contributions—Financial position of the Sudan under the new arrangement—Revenues, 1913-1914—Budgetary accounts between 1899 and 1913 inclusive.

UNDER the distinctive glamour of a military administration one is apt to lose sight of the more subdued but assuredly no less important executive part devoted to finance; it is even declared by some shallow critics that to combine a martial with a business government is a difficult if not an impossible achievement. Great soldiers have not, it may be confessed, always proved great adepts in raising and managing the public revenue. There have been exceptions—and notable ones—such as Bonaparte, whose management of local finance while still First Consul was generally considered to have been masterly and to have helped more than anything to re-establish the confidence of France in her ruler. On the other hand, there was the great Duke of Wellington, whose poor judgment in matters of finance induced him to reject the proposals of, and finally to quarrel with, Huskisson (then at the Board of Trade), one of the most brilliant financiers of his day, and among the most distinguished members of the Duke's Cabinet.

There is a passage occurring in *Don Quixote* which declares that "The army is a school in which the miser becomes generous, and the generous prodigal. Miser soldiers are like mysteries—but very rarely seen." If soldier-statesmen are inclined to be wasteful and extravagant, it is

because they usually find themselves in the possession, or at least endowed with the direction, of large sums of money, and but rarely called upon to render a minute account of their expenditure. Especially is this the case in regard to newly acquired countries which are under a military occupation.

On the contrary, there can be no question that modern military education embraces a sound financial and economic training, a fact which has been displayed of late years, and nowhere more pronouncedly than in connection with the government of the Anglo-Egyptian Sudan, although lamentably absent during and since the European War.

The financial condition of the Sudan previous to the reconquest by the British in 1898 was always poor; under its Egyptian rulers it had been starved and robbed by a horde of unconscionable official harpies; in the hands of the Mahdi and the Khalifa it had been drained of its very life-blood, and at the same time prevented, by their mockery of a government, from recuperating through its many almost untouched natural resources. At the time that Gordon went to his fate, the whole revenue of the country amounted to little more than £E507,000, while the expenditure exceeded £E610,000, thus leaving a deficit of £E103,000. Of Gordon's fervid efforts to regain control of the finances of the Sudan, and to render it at least self-supporting, we know by the frequent references in his *Journals* to his struggles against poverty.

As a matter of fact, Gordon was not either expected or requested by the British Government to deal with the finances of the Sudan, his last mission having been clearly defined and limited to the rescue, or the relief, of the Egyptian garrisons. But Gordon could not hope to carry out his task without funds, and it is pitiful to read of the straits to which he was reduced to obtain them.

The finances of the Sudan, so long as the old and iniquitous Egyptian régime remained in existence, were inextricably mixed up with those of the Equatorial Province, and Gordon determined, so soon as he became Governor-General of Equatoria, that the national accounts should be kept distinct. So well did he manage affairs at first, that in

that year (1876) the Khedive of Egypt found himself in the receipt of £48,000 from the province, which was under Gordon's rule, at a total cost of but £20,000, while a reserve fund at £60,000 more was amassed.

The financial position of the Egyptian Government in the Sudan later became as bad as the military and political. Mr. Boulger, who knew the situation, has told us that the Sudan cost Egypt on an average £50,000 a year, and the revenue failed to meet the expenditure. By the year 1877, when the Khedive Ismail appointed Gordon Governor-General of the Sudan for the first time, the expenditure of the country exceeded the revenue by more than £250,000, but by the end of 1878 this deficit had been reduced to £70,000. By the following year, 1879, the expenditure had been curtailed so much further in every direction—many sinecures had been abolished—that an exact balance was attained. The territory under the one governor-generalship then included the Sudan, Darfur, the Equatorial Province, the Red Sea Coast, and the Eastern Sudan. The office, as bestowed upon General Gordon, was made completely independent of the Ministry of Finance in Cairo. During the last years of Gordon's administration the Sudan involved no charge upon the Egyptian Exchequer; by balancing the bad provinces against the good—as is done to-day—an equilibrium was maintained.

It is worthy of note that Gordon always considered that "the Sudan would never be a source of revenue to Egypt," but, he added, "it would not be a source of expense."

Between the years 1869 and 1882 the anticipations of the annual Budget were never realised to anything like their full extent. No trustworthy accounts were kept, and it is tolerably certain that for years it had been the practice to over-estimate the revenue when, owing to the prevailing conditions, no certain revenue, or indeed any revenue at all, was to be relied upon.

The Sudan, through its intimate associations with Egypt, benefited from the financial advice of distinguished non-military counsellors—Sir Auckland Colvin, Sir Edgar Vincent, Sir Elwin Palmer, Sir Eldon Gørst, and Sir Vincent

Corbett. Lord Kitchener, as a contrast, afforded one of the finest examples of the capable soldier-financier that our country has ever produced ; while the ex-Governor-General of the Sudan, Sir F. Reginald Wingate, proved himself both shrewd and capable in administering the finances of the Sudan over a period coinciding with its reoccupation by the British troops and extending to 1917. Sir Lee Stack, the present Governor-General of the Sudan (like Lord Allenby, High Commissioner in Egypt), has proved himself a thoroughly sound financier, and has done much towards maintaining the economic status of the Sudan.

At the time of the reoccupation of the country, in September 1898, the entire revenue barely exceeded £E35,000, but by 1906 the receipts were well over £E800,000. Better still, there was a nominal surplus (after the administration expenditure had been deducted) of some £E243,000. That year the revenue was the largest hitherto recorded for the Sudan, both under the old government when the Lado, Massowa (now Italian), and Darfur were included in the Budget, and since the reoccupation.

From that time the revenues of the country have steadily improved, each year showing not a sensational but a consistently advancing tendency, altogether impressive and satisfying.

SUDAN GOVERNMENT BUDGETARY ACCOUNTS FROM 1899 TO 1913

Year.	Contribution by Egyptian Government.	Revenue.	Total Receipts.	Paid to Egyptian Government for Maintenance of the Army in the Sudan, etc.	Expenditure.	Total Expenditure.	Surplus.
	£E.	£P.	£E.	£E.	£E.	£E.	£E.
1899	444,887	126,596	571,483	281,455	290,028	571,483	..
1900	437,892	156,888	614,780	282,862	331,918	614,780	..
1901	417,179	242,309	659,488	222,634	497,335	629,969	29,519
1902	389,721	270,226	659,947	122,548	516,945	639,493	29,454
1903	389,721	462,605	852,326	193,658	620,355	814,013	38,313
1904	379,763	576,013	955,776	185,913	628,931	814,844	140,932
1905	379,763	665,411	1,045,174	186,757	681,881	868,638	176,536
1906	379,763	817,921	1,197,684	126,757	827,961	954,718	242,966
1907	379,763	975,973	1,355,736	126,757	1,012,358	1,139,115	216,621
1908	379,763	979,343	1,359,106	171,757	1,185,557	1,335,414	23,692
1909	335,000	1,042,599	1,377,599	127,000	1,153,519	1,280,519	97,080
1910	335,000	1,171,007	1,496,007	127,000	1,214,676	1,341,676	154,331
1911	366,000	1,311,218	1,671,218	172,000	1,350,854	1,522,854	148,364
1912	335,000	1,428,605	1,763,605	172,000	1,490,668	1,662,668	100,937
1913	..	1,654,148	1,654,148	..	1,613,906	1,613,906	40,242
Total	5,353,215	11,880,862	17,234,077	2,499,098	13,304,992	15,804,090	1,429,987

In the first year's joint administration (1898) the most sanguine estimate of the revenue which could be anticipated from the impoverished and terrified people of the Sudan did not exceed £E8000. It actually reached, as we have seen, £35,000, while the next year it attained the still more remarkable total of £E126,596. From this time onwards the revenue and expenditure were consistently progressive. Since the war the revenue and expenditure have been as follows :

Year.	Revenue.	Expenditure.
1915 . . .	£E1,495,227	£E1,463,934
1916 . . .	£E1,857,856	£E1,745,532
1917 . . .	£E2,195,355	£E1,901,941
1918 . . .	£E2,774,689	£E2,336,315

The financial relations existing between the Sudan and Egypt may here be explained in some detail, since they have an important bearing upon the situation which had been in existence since the reoccupation in 1898, and which only underwent a complete change in 1913. Having regained so valuable a possession as that of the Sudan, it was but natural that Egypt should be called upon to contribute generously to its maintenance and development ; for this purpose the Egyptian Treasury agreed to find annually the amount necessary to enable the Sudan Government to balance its Budget. Neither in 1898 nor for many years afterwards was the revenue sufficient to enable the Sudan to cover the whole of its civil and military expenditure. In 1899 the amount of Egypt's contribution was £E444,900, while for the following years, 1900 and 1901, the sums came to £E457,000 and £E417,000 respectively. From that date onwards, with the exception of one year, the annual contribution became smaller. For the years 1902 and 1903 the amount stood at £E390,000, and by 1904 it had been further reduced to £E380,000, at which figure it remained until 1908 ; by 1909 it had been lowered to £E335,000, and the next year to £E325,000 ; for 1911 it suddenly increased to £E360,000, due to a rise in the military expenditure brought about by the occupation of the Lado Enclave by the Sudan Government,, but for 1912 it once more fell to

£E335,000, while from 1913 the contribution was altogether abandoned.

From the formation of the Sudan Government in 1899 down to the year 1912, the Egyptian Government had made this annual contribution to enable the Sudan Budget to be balanced. It was in view of the steady growth of the Sudan revenues that it was decided to discontinue payment of the contribution as from 1913; but, on the other hand, the Egyptian Government agreed to give to the Sudan the customs dues collected at Egyptian ports on goods coming to and going from the Sudan. Until such time as a formal agreement had been established between the two Administrations, and which was to form a basis for an assessment of goods passing the Sudan customs stations, the amount of the duties to be paid by Egypt had been fixed at £E85,000. This was the sum paid on account of 1913.

It may be thought by some critics that the Egyptian Treasury has been peculiarly fortunate in finding itself, within the short period of fifteen years, free from any expense in connection with the Anglo-Egyptian Sudan, and that during these same fifteen years the country should have cost her as little as appears, viz. £E5,354,000. This would be comprehensible enough; but the net amount of the cost of the Sudan to Egypt from 1899 has been really less than appears—that is to say, the actual amount did not reach £E5,354,000, but stopped at £E3,761,035. By studying the figures, which are given in detail (see table facing this page), the force of this contention will become apparent.

FINANCE

113

Year.	Advances authorised annually.	Amounts actually advanced.	Interest at 3 per cent on Capital Expenditure in previous years.	Amount of Annual Contribution.	Total of Gross Cost.	Amounts paid back to, when received by, Egypt in respect to Sudan Trade.	Net Annual Cost.
	£E.	£E.	£E.	£E.	£E.	£E.	£E.
1899	..	..	..	444,900	444,900	74,300	370,600
1900	73,500	..	..	457,900	457,900	87,440	370,460
1901	461,000	121,000	..	417,000	417,000	156,322	260,678
1902	30,600	143,000	3,630	390,000	393,630	147,516	246,114
1903	29,000	129,000	7,920	390,000	397,920	151,576	246,344
1904	635,500	622,000	11,790	380,000	391,790	166,940	224,850
1905	1,379,500	750,000	30,450	380,000	410,450	195,840	214,610
1906	832,400	699,000	52,950	380,000	432,950	210,894	222,056
1907	554,700	922,000	73,920	380,000	453,920	200,432	253,488
1908	382,400	638,000	101,580	380,000	481,580	215,180	266,400
1909	682,400	672,000	120,720	335,000	455,720	180,500	275,220
1910	354,000	515,500	140,880	325,000	465,880	182,060	283,820
1911	..	113,500	156,345	360,000	516,345	216,000	300,345
1912	..	43,500	159,750	335,000	494,750	266,700	226,050
	5,415,000	5,368,500	859,935	5,354,800	6,214,735	2,453,700	3,761,035

It may be pointed out that hitherto Egypt, in addition to the annual contributions set forth in the above table, has advanced the Sudan money for capital expenditure upon various objects necessary for its development. The amount of this contribution plus the interest on the money advanced is the *apparent* cost of the Sudan to Egypt. To arrive at the *real* cost, therefore, deduction had to be made of the amounts which Egypt had received directly from the Sudan for the maintenance of the Egyptian army, and the amounts obtained in the form of customs dues collected at Egyptian ports upon goods imported into or exported from the Sudan, together with various amounts derived from other sources.

In the early stages of the administration of the country, the accounts kept by the Egyptian Finance Ministry of the amounts paid by the Egyptian Government for the expenditure in the Sudan did not specify whether the expenditure was properly chargeable to the Sudan or to the Egyptian Budget. Hence the figures which are given in the preceding table do not present the true indebtedness of the Sudan to the Egyptian Treasury. This question, however, was gone into in 1907 by the Egyptian Ministry of Finance, and the figure of the advances properly chargeable to the Sudan, representing the debt of the Sudan Government, was adjusted from £E3,753,000 to £E3,500,000. Since that time further advances had been made amounting to £E1,698,700, thus raising the total figure of the debt up to the end of 1913 to £E5,198,700.

It was naturally always the hope of the Sudan that the time would arrive when that young country would be enabled to dispense with the annual contribution from Egypt. That hope was abundantly realised—much sooner, indeed, than could have been anticipated; for, as already pointed out, the Sudan became completely free from the financial assistance of the parent State in 1913.

The late Sir Eldon Gorst, at the time that he was serving as British Agent at Cairo, was fully convinced that it was the duty of Egypt to finance the Sudan, and that at an early date she would derive her reward. "It cannot be doubted,"

he wrote, "that if the judicious policy of allowing the increasing receipts of the Sudan to be applied to Sudanese purposes, and of granting considerable sums for capital expenditure in that country, be continued, the deficit of the Sudan Budget will, in a comparatively few years, disappear." Within a decade this prophecy was verified.

Sir Vincent Corbett, when acting as Financial Adviser to the Egyptian Government, 1904-7, also took a hopeful view of the Sudan's financial future. Writing in his 1905 "Financial Notes," he observed: "Until the Sudan is sufficiently developed to pay its way, there is no possibility of withdrawing the subvention, or of charging interest on the capital sums advanced. The only method of developing the country is to put more capital into it, and this can only be done by advances from the Egyptian Treasury, since a Government in chronic deficit could hardly hope to borrow in the market except at very onerous terms. The yearly increasing revenue of the Sudan is welcome proof that the money it receives from Egypt is not wasted, and we hope that the day is not so far distant when Egypt will receive back a portion of the advances which she has of late years so ungrudgingly made."

Beyond receiving her discharge from the duties of further financing her vigorous young offspring, Egypt can recall with satisfaction many material advantages which the present prosperity attained by the Sudan has meant to her own economic position. It is far beyond her own frontier that lies the main source of supply of the precious Nile waters, and had the Sudan by any chance been lost to her, also would have gone her own prosperity, indeed her very life-blood. Now and henceforth, as it would seem, nothing can occur to interfere with Egypt's perpetual water-supply. The new irrigation works being undertaken by the Sudan Government, this time independently of any additional financial assistance from Egypt, will not only further increase that bountiful supply of water by artificial means, but, by augmenting the amount of water available for her own agricultural purposes, the Sudan will henceforth need less of the supply which finds its way down into Egypt.

It will be interesting to consider in another chapter the new financial position occupied by the Sudan since relinquishing so large an annual contribution of £E335,000 (less deductions) from the parent State. As we have seen, while the larger sum mentioned was struck out of "1913-14" revenue account, the Egyptian Government, on the other hand, agreed to give to the Sudan the customs duties collected at Egyptian ports (Port Said, Suez, and Alexandria) on goods coming to and going from the Sudan. Pending the establishment of a more definite agreement, the Egyptian Government had to pay to the Sudan on account the annual sum of £E85,000.

So we have the following situation. The Sudan abandoned the sum of £E335,000, and received in its place one of £E85,000. In former accounts the sum of £E172,000 appeared upon both sides of the ledger, representing a part of the contributions to the revenue, and also a repayment to Egypt for the maintenance of her army in the Sudan. The net loss to the Sudan, therefore, by the discontinuance of the Egyptian contribution would be the difference between £E335,000 and £E172,000, that is £E163,000, less, again, the £E85,000 which the Egyptian Government had to pay to the Sudan on account of the customs dues. The net loss would thus amount to £E78,000.

Measures, however, were taken for assessing the goods coming to and going from the Sudan through Egyptian ports, and in consequence, instead of the arrangements made in 1913 by which Egypt paid a lump sum of £E85,000 to the Sudan as an equivalent for the duties, the Sudan Customs have since received the amount of the duties assessed.

CHAPTER XIII

Finances (continued)—Experiences following abandonment of Egypt's financial assistance—Dependence upon physical conditions—Nile failure in 1911, 1912, and 1913—Relief in taxation—Governmental assistance to natives—Monetary position inherently sound—Revenue and expenditure—Departments, Services, and Provinces—Costs of Administration—Expanding customs revenue—Taxation—Investments—Government monopolies—Further enterprise undesirable—The Sudan Loan.

UNDER the new conditions, the estimated revenue for 1913 was £E1,631,000. In drawing up the estimate, allowance was made for the substantial decrease in revenue due to the withdrawal of the Egyptian contribution and to other unfavourable conditions which were foreshadowed; but, disappointing as had been the experiences arising from an unprecedentedly low Nile, meagre rains, cattle plague, and diminished gum exports, combined with some thousands of almost starving people whose wants had to be relieved, and a substantial interest charge on a portion of the new Loan, there yet was a surplus of £E40,142. Indeed, but for the untoward occurrences referred to, 1914 might well have proved *annus mirabilis* for the Sudan. As things were, the country's complete financial manumission was merely postponed.

Considering the numerous and exceptional adverse factors cited, and bearing in mind that 1913 had been the first year in which the Government had received no contribution from Egypt, thus being thrown entirely upon its own resources, the result may be considered not only highly satisfactory but as reflecting distinct credit upon the Finance Department of the Sudan Government. Not, perhaps, the most popular, owing to the frequency with

which funds for special provincial or other services are refused, this Department has to satisfy the constant requirements of a keen and growing Administration, and finds the task a particularly difficult and sometimes, possibly, a thankless one.

Almost from the time of the reoccupation of the Sudan (1898) the finances of the country have been in the hands of Sir E. E. Bernard, K.C.M.G., who has shown himself a careful and shrewd custodian of the country's resources. The problems confronting a Government greatly dependent upon revenues closely affected by natural causes, and which have to be collected from a people scattered over an enormously wide area of country like that of the Sudan, are exceptionally difficult to solve, and they need the services of particularly able men to solve them—men of sound judgment and wide experience like the late Lords Cromer and Kitchener, Sir Reginald Wingate, and the present Governor-General.

Whether the great idea of abandoning from 1913 the annual contribution from Egypt originated with the Administration of that country or with that of the Sudan, there seems little doubt that the occasion for putting the resolution into execution proved very untimely for the latter. The year 1913 had been an extremely trying one from many points of view, but especially from that of general revenue. The two previous years had shown themselves none too bright, from causes of a climatic character, which resulted in a poor Nile and, consequently, in the gathering of indifferent harvests. Again, in 1913 inadequate rains were experienced, and the thirsty, arid land, deprived of its customary moisture for three seasons in succession, became extremely unresponsive. The extraordinarily low Nile of 1913 proved one of the worst upon record, and the whole country suffered to a greater or less extent.

No one who has failed to visit countries like Egypt and the Sudan, which are almost wholly dependent upon the annual inundations of their rivers—having no certain rainfall of their own—can realise what the partial or complete failure of the expected flood means to the entire economic condition of the people. Small wonder that the ancient Egyptians

reverenced the river so deeply, since in its beneficent rise and overflow they recognised the source of all their wealth, their health, and their happiness. Thus they addressed the god of the Nile as the "Father of Gods," and, indeed, they ascribed to him many of the attributes of the Almighty.

It was this visitation, then—the practical failure of the Sudan's life-giving Nile flood—that brought starvation to some and temporary disaster to most. Nor was this all. The rains in 1912 in the Blue Nile, Sennar, the White Nile, and the northern provinces had been extremely bad, while those in Kordofan, Kassala, and the southern provinces had proved but moderately good. In the year 1913 things were, if possible, even worse; for in some districts rain did not fall at all. With the absence of both the Nile flood and the season's rains, there were no crops for the poorer people, who could ill afford to buy grain at the high market prices ruling. The gum crop was also deficient, while the development of the cattle and sheep trade was seriously impeded, not alone by short pasturage, but by outbreaks of disease.

All these factors meant a substantial reduction in revenue, in addition to heavy outlays by the authorities upon the purchase of grain for the people, who, in some districts, such for instance as those of Dongola and Halfa, would have starved but for the governmental assistance.

Finally, the first year's payment due upon part of the new Sudan Loan of £3,000,000 (£500,000 of which was received in 1913), including the expenses of management and those of the sinking fund, both of which have to come out of the revenues of the Sudan, had to be provided for. It may be added, however, that there was no obligation upon the part of the Government to provide for any sinking fund during the first five years.

It was on the top of these almost unexampled responsibilities that the Sudan Government found itself short of the substantial annual contribution from Egypt; as will be recognised, the shrinkage could not possibly have occurred at a more unpropitious time. It taxed the resources and the judgment of the authorities to the utmost to deal equitably with the situation of the country's finances.

Fortunately, the revenue position was not wholly bad. The crop of the area under cotton cultivation at Tokar, in the Red Sea Province, realised higher prices, which compensated for the smaller area treated, while the exports of ivory and sesame likewise increased. Additional taxation brought in £E25,000 more than the previous year, and the Egyptian Government's payment of £E85,000 on account of customs receipts also proved acceptable.

The financial conditions prevailing in 1915 were the cause of no less anxiety, while the outlook for 1916 was additionally affected by several unfavourable features such as locusts, which invaded some parts of the country, and drought which affected others. Continuance of the economic crisis naturally followed. It must always be borne in mind that the Sudan, unlike most countries, is not susceptible to sudden or irregular increases in the form of raised revenues from imposts. The very nature of the people's pursuits prevents any fresh taxation. Therefore the only resource open to the Government is that of still further curtailing expenditure. That the application of the pruning knife has been both drastic and general was proved by the fact that even official salaries were laid under tribute, inasmuch as certain legitimate advancements were temporarily arrested.

Beyond any temporary or fleeting monetary restriction dawn alluringly the more permanent advantages to be derived from the vast irrigation scheme of the Gezira, a scheme upon the success of which, indeed, the whole economic future of the Anglo-Egyptian Sudan depends. Not only will the actual construction of the great engineering undertaking—involving the expenditure over a period of perhaps thirty years of a sum exceeding £30,000,000—afford a stimulus to trade and provide employment for many thousands of workmen, who might otherwise suffer from the distress prevailing among the agricultural population, but even before the termination of the construction, and the effective conservation of the precious waters of the Nile, the incubus that now rests, fitfully and disastrously, upon the cotton industry of Lancashire will be removed, while the

great work of civilisation in the Sudan will be carried yet a step farther.

For purposes of both revenue and expenditure administration the Sudan is divided into "Departments and Services" and "Provinces." Among the first-named are found the Finance Department, the Civil Secretary's, the Legal, the Education and such-like departments, as well as of Railways, Steamers, Posts and Telegraphs, and Customs. These naturally account for the larger half of both receipts and expenditure; but while the "Departments and Services" cost rather more to administer than they yield, the "Provinces" usually return more than they cost to govern.

In the early days of the British reoccupation of the Sudan there was a strong and even an unreasoning flow of investment capital to the new and as yet unsettled country. The public's money which had been refused to Egypt was literally thrust upon the Sudan under the mistaken belief that a new El Dorado had been discovered—or rediscovered—one which only needed the magic touch of British capital to bring fabulous wealth to the lenders.

If the spirit of adventure among capitalists was not quite so intense as that of the Spanish and English gamblers who had been fired by the glowing accounts of Orellana in 1540, it was at least sufficient to account for the supply of a great deal of money which would have been more profitably employed almost anywhere than in the Sudan at this period. The glamour attaching to the name of Kitchener—the then Sirdar—seemed sufficient to spell a fortune for any one who chose to follow where his conquering footsteps had led; and yet no one regretted more than the late Lord Kitchener the efforts made to "boom" a country that had been but recently rescued from barbarism and bankruptcy.

In considering the Sudan as a field for investment it must be remembered that it is more suitable for exploitation than for settlement. If, as a field for political expansion and commercial enterprise, the Sudan offers undoubted advantages, as a place for permanent residence or for emigration it cannot be recommended.

No doubt, as the expansion of the country comes about through official efforts, there will be openings for private undertakings which offer reasonable opportunities of realising sound profit. It is unfortunately true that a great part of the British capital which found its way into the Sudan hitherto proved unprofitable. As already indicated, a considerable amount of capital was invested in the country before it was ready to receive and profit by it, and without any sufficient inquiry having been made into existing conditions and future prospects. That this money should have been partially or entirely lost should occasion but little surprise.

Of surviving industries—such as the Sudan Plantations Syndicate, Limited, formed in 1904, and the Sudan Goldfields Company, Limited, formed in 1908, fair account has been rendered, while some better results in the near future may be anticipated. Less fortunate proved the Sudan Mines, Limited, formed in 1903, which seem to have carried on more business in Cornwall and Norway than in Central Africa; or the Sudan Development and Exploration Company, Limited, formed in 1905, which, having attempted to run a flotilla of steamers on the White and Blue Niles, finally agreed to sell the fleet to the Government, who purchased it upon very favourable terms.

Following the pronounced success of the Sudan Loan (1919) and the handsome premiums established upon the shares of the Sudan Plantations, there can be little doubt that further British capital will find its way into the Anglo-Egyptian Sudan in the future. It is the avowed policy of the Government to encourage and support private enterprise of a legitimate nature. To succeed in attracting not alone foreign capital but capitalists who would by their co-operation in the development of the Sudan lend distinction to this country, the Government will be called upon not only to offer inviting terms, but to safeguard investors against any kind of injurious or unfair competition or hurtful taxation. As the administered portions of the country expand and the population increases in material welfare, there will be opportunities for the co-operation of private

enterprise, such as additional transportation in the form of tramways and light railways, electric lighting and power, financial trusts, insurance, irrigation canals and waterworks, shipping and land investment.

It is neither possible nor desirable that the Government itself should enter upon any further undertakings of this character; its functions are to administer the country rather than to exploit it. It has been generally laid down that the primary duty of a government or of a governing body is to govern and not to trade, except of course in those cases in which the public welfare manifestly demands it. Governments like local bodies are the more efficient, *cæteris paribus*, the more they confine themselves to their legitimate functions and do not overburden themselves.

Already the railways, the river steamers, the trams and ferries, the telephones, the port and dock business at Port Sudan, the running of at least one hotel and the catering upon all the railways, steamers, ferries, etc., are in the hands of the Government. With these continually expanding and mostly prosperous undertakings the Administration may well cry a halt; it might even relieve itself of one or more if a favourable opportunity were to present itself. Assuredly it should burden its hands with no others; there exists the risk, should it do so, of checking the industrial development of the country. The deplorable and extravagant blunders made by our own Government, both during and since the war, in endeavouring to conduct great industrial enterprises which preferably should have been left to private initiative and experience, form a further striking proof of the inadvisability of such policy. In other parts of the world where a similar policy has been followed—such as in Uruguay, where the Government seeks to run practically every kind of undertaking legitimately belonging to private enterprise—industrial development has materially increased the cost of productiveness; this fact in itself forms a serious menace to the financial stability and economic progress of a country.

On the other hand, it may perhaps be fairly urged that

the duty of a governing body is to undertake what it sees can best be done by itself. Undoubtedly the railways of a country which is still under martial administration should belong to the Government, while the telephone again is best in the hands of the Executive authorities. The people are certainly in no danger of unfair treatment when such enterprises are controlled by an intelligent and experienced body of men such, for instance, as the Governor-General's Council, which sits at Khartoum and actively supervises everything relating to such undertakings as those referred to.

No position of danger has arisen in the Sudan, firstly, because the scope of development is not as yet such as would permit of any sinister result; and secondly, because the Government is fully alive to the necessity as well as the desirability of encouraging outside capital and enterprise. In attracting these and securing them against possible assaillment by aggravating competition, it will not only bring general prosperity to the country but obviate the necessity of raising fresh taxation.

Finally, we may consider the advent of the Sudan as a borrower upon the market for the first time in its history. In July 1919 the new Sudan Loan Bill, dealing with a sum exactly double that previously arranged for, was passed through both Houses of Parliament. The £3,000,000 became £6,000,000, the reason for this being that engineering construction of to-day has advanced in cost more than 100 per cent. Even at this greatly enhanced figure, however, the British Treasury, in common with all financial thinkers in a position to judge, felt convinced that there would be ample funds available out of the revenues of the Sudan Government to pay 5½ per cent interest on the loan.

That the Sudan had not acted precipitately in raising this larger loan may be judged from the fact that it had been on the *tapis* since 1912, when the Government of the Protectorate for the first time in the short but eventful financial history of the country came upon the London market as a borrower. Thanks to the practical sympathies of the British Treasury, the Sudan Government found its effort to raise the sum of £3,000,000 considerably facilitated

by the guarantee of payment of interest at a rate not then exceeding $3\frac{1}{2}$ per cent. The arrangements concluded called for the British Government itself taking up the amount, £3,000,000, or placing it privately with some leading financial house. The first instalment, £500,000, was placed in December 1913, the proceeds being received by the Sudan Government during that month. It was supposed that the whole of the balance, £2,500,000, would be similarly dealt with, so that the loan would not come on to the market at all. At that time $3\frac{1}{2}$ per cent upon a Government-guaranteed investment was considered good enough; but the war changed all that, and the public in search of a thoroughly attractive investment would not feel satisfied with such a return to-day, having become accustomed to War Loans bearing interest at the rate of 4 per cent free of tax, and $5\frac{1}{2}$ and even 6 per cent subject to tax, all of which materially altered the position of the Sudan Loan as regards its attractiveness as an investment, notwithstanding the security provided by the general revenue and assets of the country.

To the Sudan the issue of this loan was not only of considerable moment from a purely reproductive point of view, but it really stamped the country as having achieved a policy which has brought a once apparently hopeless province from a state of barbarism to the verge of a settled prosperity. It was a recognition in the highest and most useful quarters that the country had entered upon a sound and continuous path of progress. This progress has been brought about in a quiet and unostentatious manner which loses none of its effect upon that account. It acts as a further and incontrovertible testimony to the soundness and the wisdom of an Administration which with only partial change in its *personnel* has held sway over the destinies of the country from 1898 until to-day.

CHAPTER XIV

Medical Department—The Director-General—Absence of epidemics—Common diseases—Births and deaths registration—Sleeping sickness—The Inter-Departmental Committee's Report—Infant mortality—Contagious diseases—Preventive measures—Sanitary barbers—Lack of hospital accommodation—Native patients—Hospital attendances—Savagery of native attacks—The Wellcome Tropical Research Laboratories—Institutional functions—Dr. Andrew Balfour—Dr. A. J. Chalmers—Major R. G. Archibald, D.S.O.—Dr. Wm. Beam—Mr. H. S. Wellcome's aims and ambitions—Valuable medical library—Historical Medical Museum in London—Wellcome's scientific benefactions.

THE remarkable efficiency of the Medical Department may fairly be attributed to the continual care which has been bestowed upon the appointments made to the staff, and to the watchfulness exercised by the officials in every part of the country. The position of Director is one which calls for great discrimination and unswerving vigilance, coupled with exceptional experience in relation to all contagious diseases and sanitary matters. The public health of the Anglo-Egyptian Sudan may be unquestionably pronounced as good, notwithstanding the ever-present danger of some disease being imported, either by means of some among the thousands of pilgrims who are for ever coming and going in normal times to and from Mecca, or across the frontiers of Abyssinia and the Congo.

Upon infrequent occasions cases of cholera present themselves, but owing to the zeal and efficiency of the authorities the scourge is never allowed to make any headway. The form assumed by this disease in the Sudan is comparatively mild—or has up till now proved so—and but for the bacteriological examination it might be doubted whether it was the true cholera at all. Some of the symptoms noticed among cholera patients, such as violent vomiting and diarrhoea,

feeble pulse, dry and cold skin, a livid hue upon the body, and cramps, are either very moderate or altogether absent. Nevertheless every precaution is adopted as if the complaint were veritably the dreaded *cholera morbus* in its most malignant form.

Sporadic cases of smallpox are never altogether absent, nor can one expect complete freedom from such complaints as cerebro-spinal meningitis, enteric fever, or malaria. Ankylostomiasis, a disease which necessitates extreme care being exercised by the authorities in medically examining the fellaheen arriving from Egypt to pursue their avocations as agriculturists, is present in the Sudan but to no great extent.

Neither has it yet been possible to greatly reduce the appalling infant mortality which occurs; in a country so sparsely populated as the Sudan to collect anything like accurate returns would be quite impossible, but even from the figures which are obtainable the proportion of child deaths seems to be extremely high. It is at least satisfactory to know that the Government are fully alive to the seriousness of the matter, and are at the present time carefully considering suggestions for dealing with the high infant mortality.

A better system of recording births and deaths has of late been devised, and the returns hereafter may prove more full and more accurate. The Public Health Ordinance which has been promulgated should do much to facilitate the efforts of the responsible authorities.

Some anxiety exists in regard to the slow but certain increase in cases of sleeping sickness. The disease—one of the most insidious character, and due to a minute blood parasite known as the *Trypanosoma gambiense*—is found principally in the Yeirub district and the Moru district. The Mongalla Province has for some time been troubled with the disease, especially in the neighbourhood of Tei; the road between Tei and Libago (Belgian Congo frontier) is practically closed to traffic in consequence of the prevalence of sleeping sickness.

A report presented by the Inter-Departmental Com-

mittee on Sleeping Sickness proves interesting but scarcely instructive, since with all the voluminous evidence taken and cautiously sifted by the Committee we seem to be very little nearer a full understanding of how best to prevent this terrible disease. The questions which the Committee seems to have most carefully investigated were the part played by wild animals and tsetse-fly in Africa in the spread of the disease ; whether it is advisable to attempt the extermination of wild animals, either generally or in a special area ; and whether any other measures should be taken in order to check the disease.

There are, it appears, two distinct and separate forms of the disease known as sleeping sickness. There is the Uganda and Sudan form, which is apparently identical with the West African disease. It is violently epidemic, and is estimated to have caused 200,000 deaths between 1898 and 1906. On the other hand, there is the sleeping sickness of Nyasaland and Rhodesia. This has only been recognised as a distinct form of the disease since 1908. It is almost certainly not epidemic in its nature. The total number of cases which a vigorous search has been able to discover is 153 in Nyasaland and 107 in Rhodesia from 1908 to 1914. It is said that the natives recognise this as an old disease.

On the whole the Committee appears to have been brought to the general conclusion that the present state of our knowledge on the whole subject does not justify any very drastic measures in the hope of stamping out the disease. It quotes with approval the remark of more than one of the witnesses who gave evidence before it, that " in this form of research there is a large element of chance ; that accidents may at any time lay bare a secret which may lead to the solution of the problem ; and that the multiplication of workers is the multiplication of those chances."

The disease is reported likewise to have established itself over a large area in the western part of Bahr-el-Ghazal and to be prevalent in the Congo to the west and south-west of Tembura. The Government authorities are doing everything that is humanly possible to stamp out the disease, but

the task of controlling so enormous a stretch of country—populated by natives who not only do nothing to assist in the campaign of extinction but actually resent official interference—is one of great difficulty, though the military quarantine measures in force have met with gratifying success.

The general condition of the hospitals in the Sudan, both civil and military, is yet but partially satisfactory. While the arrangements for the treatment of both surgical and contagious cases seem complete so far as the means at the disposal of the medical authorities enable them to make them so, the number of hospitals is too limited, while the accommodation in some is insufficient. The Government have done what they could with the restricted funds at their disposal; with a larger revenue much more would have been achieved, and no doubt will be accomplished immediately the finances of the country permit. Some large towns, like that of El Obeid for instance, are greatly in need of improved hospital accommodation, but others, such as Khartoum, Atbara, Port Sudan, Wad Medani, and Kassala, are provided with well-equipped and admirably managed institutions.

Among other necessary precautions taken by the medical authorities to prevent contagious diseases from spreading has been the licensing of sanitary barbers. The class of men who previously practised was a very low one morally and intellectually, the older members being unable to either read or write. These were gradually eliminated and a superior class of man is now selected, his duties as barber being combined with those of assisting the Mamurs in the notification of births, deaths, and vaccinations. In order that the new régime may become popular and well carried out, a small annual payment is allowed by the Government, while arrangements have been made in some provinces to give men who have already been licensed ten days' annual training in the hospitals, where they are taught the treatment of simple cases, such as dressing of wounds, and the routine handling of trachoma, a granular form of inflammation of the conjunctiva of the eyelids—occasioned by dirt and neglect—from which the lower orders of the

Sudan, like those in Egypt, suffer greatly. The sanitary barbers are proving a decided success, and a much-needed addition to the staff of the medical department.

It may be assumed that the natives who receive gratuitous treatment in the different hospitals feel in some degree grateful for the surgical skill and the remedies which are theirs merely for the asking. The Sudanese, like most Africans, are really good-hearted and kindly disposed by nature, although not much given to any outward demonstration of feeling. Gratuitous kindness, or indeed kindness in any form, and free assistance were so foreign to the experiences of these oppressed and cruelly persecuted people, that it was long before they could be induced to believe in the disinterestedness of their new rulers, and not unnaturally they were apt to regard all overtures of help with deep feelings of suspicion and, therefore, to be avoided.

It took many years of patient waiting to induce the people to enter the doors of the hospitals of their own accord; and even to-day it is only when the last hours of patients seem near and no hope remains of any native remedy proving effectual, that the majority of them consent to come in for treatment.

One would imagine that these poor creatures should feel grateful, for they must appreciate the difference between their fortunate lot to-day and that which existed but twenty years ago, when they were allowed to rot from disease and starvation in the streets of the wretched towns or in the wastes of the desert, less cared for and certainly more cruelly treated than the beasts of the field.

Taken as a whole the hospital patients behave remarkably well, cause little trouble beyond the natural anxiety to the staff occasioned by the character of their maladies—often very serious and complex—and they withstand the effects of difficult and painful operations with remarkable fortitude and physical courage. In fact they frequently exhibit the same stoic indifference when stretched upon an operating-table that they show in inflicting grievous bodily injury upon one another. Human suffering, whether it be inflicted or endured, would seem to hold few terrors for

them. Some of the acts which they perpetrate from revenge or in fits of rage are absolutely fiendish in their nature, and prove that the original savage instinct is still rife within.

In the hospital at Kassala I found a young man who had been the victim of an outrage of this kind. Two fellow-tribesmen, actuated by feelings of revenge, caught him when at some distance from the town, and having secured his arms and legs they deliberately severed the tendons in both wrists, ankles, and shoulders, thus literally "hamstringing" him. In this deplorable condition the unhappy man was left lying alone in the bush, and but for the fact that after a full week had elapsed he was accidentally discovered by a passing caravan, he must inevitably have succumbed to his injuries.

Altogether over three weeks passed before he could be brought into Kassala and placed under the care of the skilful surgeon, Captain Gibbons, R.A.M.C., who was in charge of that institution. The doctor spent many weeks diligently attending to what might well have been regarded, even by the most expert among surgeons, as a perfectly hopeless case. As a fact, however, the injured man, when I saw him, had already recovered the partial use of one hand and one arm, together with the ability to stand, with some assistance, upon both feet; there were hopes, I was informed, of the use of the other hand and arm being restored to him in part, if not entirely.

THE WELLCOME TROPICAL RESEARCH LABORATORIES AT KHARTOUM

It is startling to find at Khartoum, away in the heart of Africa, scientific research laboratories rivalling in staff and equipment any similar institution in the world. The mere sound of such names as "Khartoum," "Sudan," "Omdurman," touches chords of romance, and unconsciously brings to mind the whole entrancing history of the conquest of this great section of Africa. The military subjugation of hostile tribes was only the preliminary skirmish in the actual reconquest of the Sudan, which is now being

triumphantly achieved by science in its struggle against death-dealing bacterial and protozoan diseases.

As pioneers, and in the very forefront of the fight, stand the Wellcome Laboratories at Khartoum, which form to-day one of the most vitally important institutions in the British Empire. Their work is concerned with problems of economic biology, the solving of which will give the Tropics to the white man as a home for himself and his descendants, and bring to the native security of life and freedom from hampering diseases—in fact, civilisation.

Some of our imperial possessions, sweltering under a torrid sun, have been truly called "white men's graves," and we owe it to the researches of scientific workers engaged in the study of tropical disease that this reproach is being removed from them. That the value of such work cannot be over-estimated goes without saying, for many an administrator bearing the "white man's burden" has fallen at his post owing to want of knowledge of the precautions necessary to counteract climatic and other perilous conditions of life in tropical countries.

In Khartoum, situated on the very confines of the desert, we find splendid laboratories fitted with all modern scientific appliances, and in the hands of both able and devoted men. No better example than this could be found of the benefits of the march of civilisation, although in the rear of a conquering army. Regions that for almost countless centuries have been the home of ignorant barbarism are now illumined by the torch of science, and in combating the diseases of these regions inestimable benefits will be conferred on the inhabitants.

When Mr. Henry S. Wellcome offered to present to the Sudan Government these completely equipped Tropical Research Laboratories, the practicability and usefulness of such an institution in that wild region was doubted by some "sagacious" critics. The Government, however, judged differently, accepted the offer, and has maintained the laboratories at a high standard as a department of the Gordon Memorial College.

Mr. Wellcome had visited the Sudan at the beginning

of the Anglo-Egyptian occupation, immediately after the overthrow of the Khalifa. He had been an eye-witness of the terrible desolation which Kitchener's troops had found everywhere around, a desolation almost as much the result of disease as of Dervish destruction ; he had seen some of the most promising men among the newly installed administration laid low by wasting illnesses, and other victims succumbing to the all-conquering malaria of Central Africa. His own extensive knowledge and experience of tropical countries and of tropical diseases enabled him to comprehend the grave problems which beset the Sudan Government, and to plan an undertaking of far-reaching importance, namely, the thorough scientific study of the conditions that have interposed the barrier of death between the Dark Continent and the march of civilisation, and the search to discover effectual preventive methods of controlling such conditions. Realising a great need, Mr. Wellcome desired to aid in the regeneration of this sadly stricken country, and determined to do his best to assist in strengthening the hands and encouraging the enthusiasm of the new Government by offering it the means of carrying out his plan for obtaining and maintaining the inestimable boon of healthful surroundings. These conditions he considered could best be ensured by the establishment of a thoroughly efficient scientific institution, equipped with all necessary facilities for solving the problems of the desert and jungle, and particularly for detecting and overcoming the causes of the many fell diseases which afflicted both men and beasts in the Sudan.

Sir Reginald Wingate—like the late Lords Cromer and Kitchener—perceived the immense value to the Sudan and to the tropical world at large arising from such an institution as the Wellcome Tropical Research Laboratories. The rapid reduction of contagious and endemic disease in a wide area, previously the hot-bed of malaria and epidemical complaints, is alone a result which has abundantly justified the undertaking, while the range of successful work in other directions has helped materially the economic development of the country. These laboratories at Khartoum, which

have now been in operation since 1902, have proved a sound and sensible as well as a magnanimous enterprise. Khartoum itself is now practically free from the dread malaria.

These research laboratories have probably contributed as much to the world's knowledge of tropical medicine as any other similar institution. How necessary is this knowledge every student appreciates who realises the importance of controlling conditions in the countries from whence great epidemics originate, or where fatal diseases, puzzling alike to explorer and medical man, remain endemic. They can only be so controlled by knowing more about the incidence of tropical diseases, and to this study the staff of the Wellcome Laboratories have devoted their time and energy with altogether brilliant results.

On account of climatic conditions, great difficulty was experienced in preserving specimens of pathological material, disease-carrying insects, etc., collected by the pathological expeditions sent out by the laboratories to remote parts of the Sudan. To meet these difficulties, Mr. Wellcome equipped a large barge as a Floating Laboratory, completely fitted for research work, as an auxiliary to the Wellcome Tropical Research Laboratories at Khartoum. The Floating Laboratory was suggested and designed by the then Director, Dr. Andrew Balfour; it is fitted with wire-screened living-rooms on the upper deck to protect the staff from mosquitoes and other insect pests. The barge on which it is erected, and a steam launch to tow it from place to place, were supplied by the Government. Members of the staff are now enabled to cruise upon the Blue and White Niles and their various tributaries, including the Bahr-el-Ghazal and Sobat rivers, and thus penetrate the most deadly regions to obtain valuable information, and to study and deal promptly on the spot with specimens and materials collected, and so carry the war into "the enemy's camp."

Assuredly no more valuable institution exists anywhere in the world than the Wellcome Tropical Research Laboratories at Khartoum—no more admirable scientific work has ever been carried out than that performed by the

staff of expert specialists who have been, and still are, engaged there. Vast is the field of research which the institution has entered upon, ramifying as it does into many departments of science and embracing a great variety of serious economic problems. The results of these researches have been published periodically in official reports, presented in a series of handsome and compendious volumes, elaborately illustrated and embellished with numerous coloured plates. It is impossible here to touch upon more than the fringe of the many matters investigated with such painstaking thoroughness, but as an example of the practical nature of the work reference may be made to the full account given in one of the volumes of the sanitary measures, instituted by the Director, which have contributed so efficiently to the present unique condition of Khartoum as one of the healthiest, just as at one time it was probably the most insanitary, of African cities.

Dr. Balfour effectually made war on malaria-carrying mosquitoes at Khartoum, as did Surgeon-General Gorgas at Panama, by means of a thoroughly organised system for searching out the mosquito breeding-places and destroying the larvae. The valuable trypanosomiasis researches, conducted both in the laboratories at Khartoum and in the field, have added to our knowledge of that dread disease in both men and animals. To the Sudan Government is due the credit of having dealt with this terrible scourge promptly and in such a sound, thorough, and efficient manner by quarantine and otherwise that they have effectually checked its introduction into the Anglo-Egyptian Sudan, though it is wide-spread about the southern borders. A notable piece of work undertaken by the laboratories in conjunction with the Government was the Kala Azar Commission to investigate the prevalence and cause of this deadly disease in certain districts. Five tours of inspection were made, and 219 villages visited. These highly important researches are still in progress. Out of such a wealth of other important scientific work it would seem invidious to select any particular subject for comment. The great range of investigations

embraces chemical, agricultural, entomological, geological, and sanitary problems, in addition to researches in anthropology and historical and modern native medicine, etc., all of which have been carried out with fruitful results.

Nor has all this been done without difficulty and risk, and it is regrettable to have to record that at least two notable members of the laboratories' staff fell martyrs to science; both Dr. A. MacTier Pirrie and Mr. E. Inglis losing their lives through fatal infection whilst pursuing tropical researches for the benefit of their fellow-men.

To afford any accurate conception of the splendid services rendered to humanity at large by the staff of these laboratories would require not one chapter, but twenty in this volume. Fortunately any author who elects to deal with the scientific evolution of the Sudan is relieved of any necessity to enter into detail regarding this world-famed Khartoum institution. As above stated, there already exist the official reports of what has been and what is being done, than which nothing more complete or more thorough could possibly be desired. They stand not only as a monument to the devoted services of the men who have compiled them, sometimes under conditions of extreme difficulty and danger, but also to the thoughtfulness of the man—Henry S. Wellcome—who by his generosity had rendered this possible.

The functions of the Wellcome Tropical Research Laboratories, which are located in the handsome Gordon Memorial College building at Khartoum, include—

- (a) The study of tropical hygiene and of tropical disorders, both of man and beast, especially the communicable diseases peculiar to the Sudan, and to co-operate with, and to render assistance to, Military and Civil Medical Officers, Officers of Health, and the clinics of the Civil and Military Hospitals.
- (b) The study of plant diseases, both those due to fungi and other vegetable parasites, and those caused by insects, the study of harmful and beneficial insects, and especially of insects in their relation to tropical medicine.

- ¹ (c) To carry out investigations in connection with cases of poisoning, and to develop methods for the detection of the toxic agents which may be employed by the natives.
- (d) To carry out chemical and bacteriological tests in connection with water, food-stuffs, and other sanitary questions.
- (e) To make analyses or assays of soils, minerals, ores, fuels, etc.
- (f) Finally to carry out investigations in connection with agricultural and forest products or operations, and, generally speaking, of any material which may be of practical interest in the economic development of the Sudan.

THE WELLCOME LABORATORIES AT KHARTOUM

Dr. Andrew Balfour, C.M.G., C.B., M.D., F.R.C.P. (Edin.), D.P.H. (Camb.), who is recognised as one of the foremost authorities on tropical diseases and sanitation, devoted himself for twelve years to the direction of the Wellcome Laboratories at Khartoum, and it was during this régime that the institution achieved the success which has made it so universally renowned. At the same time Dr. Balfour filled the position of Medical Officer of Health at Khartoum and Sanitary Adviser to the Sudan Medical Department.

In 1913, to the great regret of the Sudan Government, Dr. Balfour retired from the directorship of the Khartoum Laboratories and was appointed Director-in-Chief of the newly founded Wellcome Bureau of Scientific Research, located in London. This new position gave him and his highly qualified staff world-wide scope for scientific research.

It was found a very difficult task to nominate a capable Director to fill the place of Dr. Balfour, but, fortunately, there was found a thoroughly competent successor in Dr. Albert J. Chalmers. His extensive experience in tropical

¹ Dr. Wm. Beam, the distinguished Chief of the Chemical section of the Wellcome Laboratories, whose researches gained for him world-wide fame, died April 5, 1919, after 16 years' valuable service.

research, gained in West Africa, Ceylon, and other tropical regions, not only won for him high distinction, but specially qualified him to deal efficiently with the many difficult scientific problems which continually occur in the Sudan. Dr. Chalmers was appointed Director of the Wellcome Tropical Research Laboratories, Khartoum, in May 1913, and, after doing much valuable work, died in April 1920 and was succeeded by Major R. G. Archibald, D.S.O., who has been long and honourably associated with this Institution.

The Wellcome Tropical Research Laboratories at Khartoum form only one of Mr. Wellcome's many contributions to the cause of science and humanity; among his other notable benefactions I mention only the following: He presented to the C.M.S. Medical Mission a completely equipped dispensary for their station at Mengo (Uganda), and this has proved a distinct boon, not only to natives but also to Europeans in that region. Travellers who have visited Uganda speak warmly of this institution and of the useful work carried on by the C.M.S. Medical Mission. In China the Wellcome China Medical Publication Fund, under the control of the United China Medical Missions, is conferring benefits upon that country by bearing the cost of translating into Chinese current medical, chemical, and pharmaceutical works by standard authors, and publishing text-books at very moderate prices in order to place them within the reach of even the poorest students, thus greatly assisting the new medical schools which are rapidly revolutionising medical and surgical practice in China by the introduction of modern scientific methods.

The donor's passion for research is well exemplified in his various institutions in London, which include the Bureau of Scientific Research, 25, 26, and 27 Endsleigh Gardens, Gordon Square, N.W.; the Chemical Research Laboratories, situated at 6 King Street; and the Physiological Research Laboratories, established at Langley Court, Beckenham, Kent. These three institutions, with their distinguished staffs of specialists, have gained world-wide fame, and are

contributing abundantly to the fund of human knowledge, as evidenced by the records of the scientific press and of various learned societies. At the beginning of the late war the resources of the Bureau were placed wholly at the disposal of the War Office, and the members of its scientific staff were employed during the war on Army work, for the most part in tropical and sub-tropical areas. Dr. Balfour, with the rank of Lieutenant-Colonel, R.A.M.C., was appointed a member of the Medical Advisory Committee, and in this and other capacities visited nearly all the fields of operations, and in recognition of his distinguished service was awarded a C.B. Dr. C. M. Wenyon, well known for his protozoological work in the Sudan, and who became Colonel Wenyon, A.M.S., was also a member of the above Advisory Committee, and was afterwards employed in Macedonia and with the Army in the Caucasus. His services were recognised by his being made a C.M.G. and C.B.E.

Perhaps the most extraordinary of all the beneficent scientific institutions founded by Mr. Wellcome is the Historical Medical Museum with premises at 54A Wigmore Street, London. This museum contains by far the most perfect and complete collection in the world of objects illustrative of the history of medicine, surgery, and the allied sciences, and represents many years of archaeological and historical research and indefatigable industry in collecting the material. The educational value of this collection is incalculable; a distinguished authority has referred to this undertaking in the following terms: "We have in Mr. Wellcome a man whose wealth and personal energies have been for years entirely at the service of science. Mr. Wellcome has not only promoted investigation in the newest fields, as instanced by Dr. Balfour's excellent parasitological work and his own anthropological researches in the Sudan, but he has indicated and made possible a no less abundant harvest in the forgotten storehouse of the past by accumulating into a great museum ancient scientific implements, tokens, trophies, manuscripts, and early printed books, to an extent never seen nor dreamt of before. Thus, henceforth shall the experience of the past go hand-in-hand

with modern research, and progress be all the more rapid because, as Hippocrates said twenty-four centuries ago, 'Much waste of time would be avoided if physicians began their researches by studying what the ancients have done before them.' "

It would, perhaps, be too much to expect all of those who have criticised Mr. Wellcome's liberal expenditure of his energy and money on research work in the Sudan to understand his lofty aims and unselfish purposes, or to appreciate the vast benefits to science and to mankind which have already resulted, and which must result in the future. An eminent traveller of wide learning who visited the Sudan several years ago was so impressed by the work of the Wellcome Tropical Research Laboratories at Khartoum that he wrote as follows: "It is the beginning of a work comparable in importance to that of the great Portuguese travellers and explorers of the fifteenth and sixteenth centuries. Prince Henry the Navigator, Vasco da Gama, and Bartoloméo Diaz laid open the coasts of Africa to the exploitation and commerce of Europe, but through all the intervening centuries the interior of the Dark Continent has remained inhospitable and deadly. It seems as if modern science and hygiene may once more restore it to civilisation and render it habitable and wholesome for the northern races. And in this great peaceful reconquest of the South, the Wellcome Laboratories at Khartoum will be in the vanward files. If Britain had done no more in the Sudan than to provide a secure centre for this scientific work, we should have justified our efforts to get back to the Upper Nile."

CHAPTER XV

The army—The old-time Egyptian soldier—Troops of Ismail Pasha—"Little better than a rabble"—Sir Evelyn Wood's reorganisation—Modern methods and efficiency—Improvements effected—Conscription—Supply and demand—Military School at Khartoum—Cadets and their capacities—First Sudanese regiment—Kitchener's policy—Comparison between Egyptian and Sudanese troops—British garrison at Khartoum—Establishment of Egyptian army in the Sudan—Sudanese battalions—Arms and ammunition regulations—Sudanese women as soldiers' wives.

At the time that Gordon first went out to the Sudan the Governor-Generalship—under the superior dominion of Egypt—extended over the provinces of Dongola, Berber (then called Berbera), Khartoum, Sennar, Fazogl, Tokar, and Kordofan. These seven provinces were ruled by separate governors of Turkish origin, and were garrisoned by regular infantry and irregular cavalry. Each province was subdivided into districts, the regulation of which was entrusted to "Kashefs"; each had at his command forty irregular cavalry, who formed the constabulary and assisted in collecting the revenue.

The total military force in the Sudan at this period (soon afterwards considerably reduced) consisted of the first, second, and third regiments of the line, each of 4000 men; two batteries of artillery; and nine troops of irregular cavalry, each consisting of 400 men, armed with carbines and pistols; the whole comprising a force of 16,000 men, distributed over the various provinces.

The three infantry regiments had occupied the Sudan since its invasion in 1827 by Ismail Pasha; originally composed of Egyptians and Syrians—the commissioned officers excepted—it had been kept in a state of efficiency by the introduction of negro recruits obtained by purchase

from the Arabs. At this time no Sudanese would willingly enter the army, and upon the mere threat of conscription hundreds of able-bodied men fled affrightedly to the neighbouring countries or hid themselves in the mountains. It is upon record that the Egyptian troops (irregulars) were permitted to travel to their wars with a pot of *merissa* (native beer), a rosary for prayer, and one or more concubines.

We are also told by contemporary writers that in these days the Egyptian army amounted to something little better than a rabble, an unruly mob of slipshod, musket-nursing ruffians, lacking both discipline and enthusiasm, and asking nothing better than to be allowed to return to their distant villages and there pursue their desultory attempts at agriculture. A vivid picture has been drawn for us of a fellaheen soldier calmly seated cross-legged on a chair-while on sentry-go, or standing bootless in his sentry-box in order to keep his feet cool. Apparently sewing on buttons was the only martial accomplishment in which he excelled. Probably never again will the fright and frenzy, the wild misdirected fire, and the almost complete lack of obedience to command, such as distinguished the Egyptian troops at Tel-el-Kebir, have to be recorded against this now definitely re-formed and wholly reinvigorated body of troops.

By Khedivial decree, dated December 20, 1882, the old Egyptian army was disbanded, and a new régime, under the direction of the late Sir Evelyn Wood, was brought into being. It was that distinguished soldier who raised the new Egyptian army, after having served with the 2nd Brigade (2nd Division) in the expedition to Egypt.

While Wood undoubtedly "made" the Sudanese, just as he had made the Egyptian army, of which he may be said to have been its Von Roon, it was Sir Evelyn Baring (Lord Cromer) who lent powerful aid, rendering priceless services in this as in so many directions during 1882-83, while Lord Dufferin was still in Egypt. Neither should the services of the then young regimental officers—of whom Captain Horatio Herbert Kitchener was one—be forgotten

in this connection, for it was by their great ability, justice, patient and kindly firmness that the half-cowed and wholly distrustful Egyptians were eventually won over.

As Commander-in-Chief, Sir Evelyn Wood was enabled to put his well-thought-out theories into practice without opposition, and his handling of the difficulties which confronted him showed speedily that he not only knew what to do, but did it. No idea of a Mahdist war, with all its bitter accompaniments, was then entertained; but the seed which was sown under the clear organisation of Wood's command bore excellent fruit less than twenty years later.

His appointment of a number of British officers on full pay to staff and regimental commands in the new Egyptian army proved a shrewd and well-judged step; it became, indeed, the keystone to the whole subsequent structure. At first the service in the ranks was for a term of four years, followed by four years in the police and a further four in the reserve; the police were available as a first reserve.

Five years later the term of service was extended to five years with the active army and to five years with the police and reserve forces.

At first, also, native officers were selected from the old army; but future appointments were conferred upon men who had been trained at a military school, and to which they were admitted by competition. The rank and file were recruited by conscription, but the numbers required proved only a light tax upon the large population of Egypt; it was found then, as now, always easy to secure more recruits than there was room for.

Amazing has been the improvement effected in both the *moral* and the appearance of the Egyptian troops—"Gippies," as they are familiarly called—since that year of 1883. To-day they are found patient, prompt, obedient, and brave; they shoot well, and go through their various evolutions of drill smartly and with apparent enthusiasm. None but those who may have seen the disorderly, dissatisfied, and disunited mob which constituted the Egyptian army in the Sudan some five-and-thirty years ago, and

who may likewise have had the privilege of seeing the Sultan's troops to-day, would credit that so complete a transformation could have been effected from material so utterly unpromising.

So much had military service been feared and loathed in the olden times that the fellaheen would deliberately mutilate themselves so as to escape service. Even that expedient, however, did not save them, for the notorious Abbas Pasha formed two battalions of self-mutilated men—one-eyed, handless, or fingerless—who were specially trained to make use of that portion of their anatomy which remained whole.

Although liable to conscription when they reach nineteen years, the Egyptians are not nowadays called up until they have attained the age of twenty-three. The present Egyptian troops are the flower of their race; only the physically fit are now selected. They have proved themselves perfectly steady under fire, and they have shown a virile disposition—of which they were previously not even suspected—to dash at the enemy of their own initiative. Such has been one result of military training at British hands of the once-despised fellaheen.

The Military School at Khartoum was established at the suggestion of the former Sirdar and Governor-General of the Sudan, Sir F. Reginald Wingate, who had observed the detrimental effect that the climate of Cairo produced upon the Sudanese cadets who formerly had to attend to receive their military training. The school is commanded by a British officer, and the cadets are recruited among the black pupils of the Gordon College. The number of pupils averages from forty to fifty, a proportion being of Arab descent and belonging to the Jaalin, Shukria, Rizeigat, and other tribes. The majority consist of pure-blooded negroes.

Cadetships are open to boys from the Gordon Memorial College, boys recommended by their head masters through the governors of provinces, and to certain non-commissioned officers of the Sudanese battalions of the Egyptian army. In the first two classes candidates are required to pass

a simple examination in order to test their educational capabilities, after which they are medically examined and retained for a brief period in the establishment so that it may be further ascertained whether they are suitable candidates for a military career.

The fees demanded are merely nominal, and in the majority of instances cadets succeed in being placed upon the non-paying list as a result of their parents petitioning the Sirdar for this privilege, one which is very seldom refused. Of the total number of cadets now at the School most are Gordon College boys, while a few are N.C.O.'s from the Sudanese battalions. There are twenty cadets on the paying list, for each of whom the sum of £E8 is paid; ranker-cadets are not expected to pay any fees. Cadets are boarded and lodged in the establishment, while their clothing, equipment, and books are also found for them by the Government.

The period of instruction extends over three years in the case of the Gordon College cadets, and over a period of between eighteen months and two years in the case of ranker-cadets. The average time devoted to work each week amounts to $32\frac{1}{2}$ hours, and the average working-day hours are as follows: 6.30 A.M. to 7.30 A.M. and from 8.15 A.M. to 9 A.M., outdoor work; 9 A.M. to 12.30 P.M., indoor work.

The outdoor subjects of instruction comprise drill and field work (Infantry Drill, Parts I. and II., up to and including battalion drill and ceremonial field training and infantry exercises); gymnastics (vaulting horse, parallel bars, horizontal bar, rope climbing, physical drill, sword drill, saluting, etc.); signalling (flag and dummy key; simple messages in Morse and semaphore); musketry as laid down for an infantry company, field-firing excepted, and judging distances up to 1500 yards; simple landscape sketching for military purposes; and topography (plane table, prismatic compass, cavalry sketching-board, etc.). Practical bridging is taught during annual camp, while cadets are instructed in the erection and use of simple military bridges, trestle, lock, etc., and also in knotting, splicing, and lashing, and elementary

field fortification. Riding instruction for the senior class and attached N.C.O.'s is also carried out in the riding school under the officer commanding the Sirdar's escort.

The indoor subjects include military law (in all its branches, particular attention being devoted to the framing of charges); Army regulations (army customs, etiquette, etc.); interior economy, musketry, signalling, financial, clothing, equipment, supplies, pay, accounts relating to army pay, and the making out of monthly accounts, and all army forms; tactics and fortification (theory of field training and infantry field exercises, Infantry Drill, vol. ii., simple schemes on paper based on military sketches); topography and map-reading (scales, compass, etc., preliminary preparation for practical outdoor instruction, plotting from field note-book, conventional signs, military map-reading, and road and river reports); first aid (St. John's Ambulance under an officer detailed by the Staff Medical Officer); official letter writing; geography (Egypt and the Sudan, principal towns, districts, etc., tribes, roads, and routes, rivers and produce); arithmetic (proportion, fractions, decimals, etc.).

The first regiment of "black" troops was raised in May 1884. It had, however, been recognised since 1882, when the Sudanese troops were fighting against us, that they formed the best possible material, and that therein lay the future backbone of the Sudanese army. While the British had found it easy enough to repulse at Kassassin the Egyptian infantry and cavalry—although supported by several Krupp batteries—much greater difficulty was experienced by General Graham's brigade in handling the brave and the persistent Sudanese. Just as fearlessly as these plucky fellows fought against us then, so would they gallantly fight for us now if the necessity arose.

It was, then, in Suakin, some thirty-five years ago, that the first Sudanese battalion was recruited. It was known as the 9th, the men being recruited from among a variety of tribes—Dinkas, Shilluks, Gallas, and others who included a number of deserters from the Mahdi's camp. When Sir Francis (after Lord) Grenfell became Sirdar in 1885, he

continued the excellent work of his predecessor in re-forming the Sudanese troops. He created four additional battalions, and with this material to handle he succeeded in winning several important engagements against the Dervishes. Sir H. H. Kitchener, who became Sirdar in 1892, still further perfected the Sudanese regiments, until in 1896 a sixth battalion was raised, and in that and the following year four additional fellaheen battalions were added to the army. At the time that the Khartoum campaign was commenced there were eighteen battalions of infantry, ten squadrons of cavalry, one camel corps of eight companies, five batteries of artillery, together with the usual number of engineers, medical staff, transport, and other departmental troops.

The Sudanese black enjoys fighting for its own sake, and he will fight against his own brother without harbouring the least ill-will and without feeling the slightest compunction. Nevertheless, as has been abundantly testified, he is really one of the kindest of souls when not actually engaged in battle, and he is said to make the best mercenary soldier in the world. Treachery against their officers, or against any one whose bread they have once broken, forms no part of the nature of the Sudanese, and those agitators who have endeavoured at various times to suborn them have almost invariably failed. The attempt to persuade a portion of the Port Sudan garrison to mutiny in the month of December 1914 upon the outbreak of the war with Turkey, afforded a striking instance of the futility of tampering with the loyalty of the Egyptian troops.

The first British camel corps formed for service in the Sudan was organised by Major-General Sir Edward Hutton, then known as "Curly" Hutton, afterwards Commander-in-Chief of the Forces in the Australian Commonwealth. This corps was found invaluable at the time of the Gordon Relief Expedition in 1884. The modern establishment comprises a camel corps of four Arab companies and one Sudanese company, with 7 British officers, 26 Egyptian and Sudanese officers, 762 N.C.O.'s, men, and boys, or a total of 795.

The British garrison at Khartoum consists of six companies of infantry and a detachment of garrison artillery, with details. One company of infantry are mounted on camels, and "Tommy" soon learns to get upon almost friendly terms with his usually intractable beast. Very popular prove the short patrols which are carried out during the training season, the soldiers apparently enjoying their experiences quite as much as do the population of the provinces through which they pass.

Everything which common sense, coupled with good discipline, can suggest for the personal advantage of "Tommy Atkins" undergoing barrack-life in the Sudan has been and is being done. There is no pampering, but considerable comfort; no waste, but decided sufficiency. The principal British barracks are those at Khartoum, contained in a series of large airy brick buildings, connected, and situated in a pleasant as well as a healthy position upon the banks of the historic Blue Nile.

An abundance of tree-shade is afforded—an immense advantage where the glare of the fierce African sun must be endured for three hundred out of the three hundred and sixty-five days of the year. Special attention has also been devoted to the number and the character of the bath-houses; "Tommy," above all things, is a very clean animal—the lack of water, to which so many residents in the interior of the Sudan must accustom themselves, concerns him not at all while in barracks.

The barrack-rooms are lofty, and are constructed on the bungalow system; electric light is everywhere installed, but this proves somewhat of a mixed blessing, since it succeeds in attracting myriads upon myriads of insects, ranging from the irritating, almost invisible, midge to the lumbering night-beetle, which, in ever-increasing battalions, whirl madly around and finally dash against the electric light globes, heaps of scaly bodies being swept up every morning and thrown away.

The barrack-room meal-hours, like the rations served, are strictly adapted to the peculiar climate of the country. Early breakfast is provided at 5.30 A.M., consisting of

bread, some kind of preserve, and occasionally of some cereal food ; dinner, served at 12 noon, consists of meat, variously cooked, and vegetables, with plenty of bread ; tea, taken at 5 P.M., includes tinned fruits, preserves, etc., etc. There is very little grumbling to be heard among the men in regard to the character of the catering, which is carried out by contract and under strict supervision of the military authorities.

"Tommy" is not permitted to fall into the sluggish habits which a sojourn in a hot climate, unattended by sufficient physical exercise, speedily produces. In the Sudan, as in India, during the intensely hot days and nights of summer, the human being must be careful both of his food and of his drink. In the great majority of cases where long residence is obligatory—some of the British regiments have served in Egypt and the Sudan uninterruptedly for five years—this rule is so well understood that the men go home as "fit" as they came out. There is little necessity, perhaps, for either officer or man to measure out his food by ounces or his drink by gills ; to abstain from this food or that ; or dread to taste of an ice-pudding and to shudder at a "cocktail." The present generation at least lead a hardy, simple life—enjoying it in marked contrast, one would say, to the earliest military settlers in the East, who appear to have been an indolent, dissipated, gasping lot of swollen-livered individuals, from the General downwards.

The Sudan military authorities have ordained that "Tommy" shall have sufficient but not too much physical exercise. Rising at 5 A.M., he has two hours of sound drill, from 6 to 8 A.M., and that is all the violent exercise for the day. Between 10 and 11 A.M. there is an inspection of the barrack-rooms, beds, rifles, and bayonets. Consideration is shown in many ways for the men's physical comfort, as for instance allowing them to discard their tunics when upon parade owing to the great heat of the climate.

The Headquarters Staff are at Khartoum, which is a First Class Military District, while other First Class Military Districts comprise Cairo, Dongola, Kassala, Blue Nile (including Sennar), Bahr-el-Ghazal, Kordofan, Upper Nile,

and Mongalla. The Second Class Districts consist of Atbara, Red Sea, and Halfa.

Those who have passed any time among the Sudanese troops must have been struck by the generally soldierly manner in which these men conduct themselves—by their remarkably easy carriage, their neat appearance, and their continual alertness. Almost invariably their linen looks clean, their uniforms unstained, and their boots—except for the sand and dust which in the Sudan lie thick upon everything—irreproachable. Nor does this condition of faultlessness apply merely to their personal appearance upon parade ; in camp their appearance is usually neat and their hands and faces are free from grime ; while their tents or barracks are kept in a state of cleanliness and orderliness at all times. Indeed, every evidence is offered that the black troops are genuinely in love with their work and glory in " soldiering," always

*Jealous in honour, sudden and quick in quarrel,
Seeking the bubble reputation even in the cannon's mouth.*

Very strict regulations are in force regarding the importation into or the sale of fire-arms in the Sudan ; but, notwithstanding, a certain amount of contraband still finds its way across the border, especially through Abyssinia, and this kind of illicit traffic must continue to flourish until the authorities can afford to increase the number and the strength of the patrols.

Officials, while permitted to possess and to use fire-arms, have to take out licences (at greatly reduced fees, however), and a complete record is kept of all the importations and exportations of both arms and ammunition entering or leaving the country. All gunsmiths and vendors of ammunition are carefully and constantly kept under surveillance, and it is noteworthy that but few attempts are now made to contravene or defy the Government regulations upon this matter.

Native soldiery and police, however, are sometimes tempted to appropriate any .303 ammunition that they may find unguarded ; especial care is therefore exercised to

keep all such under lock and key—only European officials are by regulation permitted to own it. Should a trooper or a policeman lose or be unable to account for any portion of the ammunition which has been served out to him, he is either punished or made to pay the full value of the deficient rounds.

As a rule, provincial officials know exactly how many rounds of ammunition exist—or should exist—in their district, and a constant check and counter-check upon these amounts are made and records entered. It must thus become extremely difficult for any evilly-disposed individual to amass any appreciable quantity of ammunition, even where it had been possible to obtain the fire-arms with which to use it. Another regulation of Government forbids any one to possess ammunition other than that suitable for the particular licensed arms in his possession.

In practically all the military campaigns which have been conducted in the Sudan in which black troops have been employed, their womenfolk have accompanied them. Whether this practice will be permitted in the future it is difficult to say, the decision, of course, depending upon the individual views of the commander. Undoubtedly the troops themselves seem to derive inspiration and consolation from the close presence of their female companions, and I have been assured by several military authorities that the men would probably fight less well without than they do with their women near at hand. The same experience was gained in the Balkan War, the Servian, the Montenegrin, and many of the Bulgarian soldiers being accompanied by their wives and sweethearts, mothers and sisters upon many of their long and tedious marches.

The Sudanese women seem to occupy an entirely different position from that assigned to either Arab or Turkish women. They decline, for instance, to cover their faces from masculine gaze, they take an active part in the pursuits of their husbands, and, generally, they seem to enact the rôle of predominant partner. For all this they are true "womanly" women, very affectionate and faithful to their husbands, attentive, if not devoted, to their children, and

exceedingly industrious both as domestic drudges and as independent wage-earners.

It has, however, been in time of war, to which the last generation had, unfortunately, been so much accustomed, that the best attributes of these women have asserted themselves. They have followed their lords for hundreds of miles on the march, and for days at a stretch, pitching their humble shelters in the bush or on the hard, stony desert, frequently sleeping without any kind of protection from the intense heat of the day or from the frigid cold of the night. The Sudanese women customarily march in groups for the sake of companionship and greater safety, carrying upon their heads their few paltry household goods—a calabash, a few earthenware pots, a thin sleeping-mat of plaited straw, a goatskin filled with grain (*dura*) or with water, with no clothing other than the dark-blue cotton (*darmur*) sheet which serves them alike as a day and a night garment.

CHAPTER XVI

Police—Early Egyptian system—Reforms slow but sure—Ghafirs (night-watchmen)—Appointment of European Superintendent—Improvements effected—Selection of candidates—Class of man appointed—Period of service—Conditions—Rates of payment—Régime—Strength of Khartoum Force—Police on night duty—Policing Khartoum and Omdurman—Difficulties encountered—Mounted Police Corps—Necessary additions—Arms and ammunition.

JUST as the necessity for reorganising the civil police force of Egypt attracted the attention of Lord Dufferin in 1883, so did the lack of an efficient body in the Sudan secure the careful consideration of the Governor-General, Sir F. Reginald Wingate, as early as 1899. But a long time necessarily elapsed before the opportunity presented itself for putting into execution most of the projects which had presented themselves, other, and perhaps more urgent, affairs first demanding attention. Fortunately there was no troublesome "Clifford Lloyd" at Khartoum as there had been at Cairo to try risky experiments destined to prove in the end of a profitless nature; if the reforms introduced into the Sudan police force were slow, they at least proved sure.

It has been said with truth that there is probably no branch of the public service in the East with which it is more difficult to deal than that of the police. Indian Governors know this better than any one, and it may be remembered that, during his viceroyalty, Lord Curzon instituted a strong Police Commission in India to deal with this complex subject. The greatest difficulty of all is perhaps found in the practical impossibility of obtaining first-class men to enter the higher grades of the force, and nowhere has this obstacle been more freely encountered than in the Sudan. In a country

where, moreover, the population consists of many different tribes, each with its own prejudices and customs, and sprinkled with a fair number of resident Europeans, the dilemma facing the responsible authorities is greatly increased in seriousness.

As was the case in Egypt in times past, not very remote, viz. 1894, the Sudan civil police were mainly or exclusively under the control of the Egyptian Mamurs and native officers. To-day, in addition to a competent European official, known as Director of the Prisons and Police Section (as well as of Stores), there are engaged a permanent European Superintendent of Police, an Assistant Superintendent, and two Head Clerks, one for the Stores, the other for the Prisons.

Under the old system which had for so long been in vogue, the training of the day police proved inadequate and the discipline lax, while little or no care was exercised in the selection of candidates for enlistment in the force. Of the ghafirs or night-watchmen little can be said to their credit; cases have been known where they had actually rendered assistance to thieves for a consideration or a share of the spoil, while almost invariably, when proceeding on night-watch duty, ghafirs paraded "with their bedding"!

In some towns of the Sudan the archaic custom of employing "crying" ghafirs prevails even yet, reminding one of the days of the watch in Old London, of the still existent practice in India, and of the noisy, shrill whistling of the night police throughout Latin America. No doubt some kind of audible warning is necessary, not alone owing to the liberties taken by prowling wild beasts—which have been known to enter the Sudanese towns of Gedaref and Kassala, among others, and to bear away goats, sheep, and even young asses from under the very noses of their owners—but on account of the propensity among the poorly paid men to fall fast asleep at their posts. The loud and continuous calling to one another at intervals of a few seconds becomes extremely trying and wearisome to the residents, while indeed it loses much of its effect, since any prowler—human or animal—would soon cease to feel any

fear, familiarity, in this as in other cases, tending to breed contempt.

In 1910 the Sudan Government decided upon altering the state of affairs then prevailing, and as the first step towards the reorganisation of the whole police force they engaged the services of Mr. J. H. Bloomburgh, late of the Khartoum Province Police, who had seen considerable service in the British army, in which he attained to the rank of warrant officer. Mr. Bloomburgh refused the offer of a commission in order to take up the new post which was tendered to him by the Sudan Government. In addition to his army service Mr. Bloomburgh had had experience in organising bodies of men for civil duties both in India and British Somaliland, and these facts carried considerable weight with the authorities in the Sudan.

When first he went to Khartoum in July 1910 Mr. Bloomburgh found that he was Superintendent of Police in name only, since his duties consisted chiefly in dealing with applications for gun, game, liquor, and other licences. He then approached the Governor of Khartoum with a view to being permitted to commence the serious work of reorganising the Khartoum Police Force; it was towards the end of 1910 that the authorities finally sanctioned his making a start with the police force of Omdurman.

The drilling, training, and organising of this unit proved thoroughly successful, and the change resulting in a marked decrease in the number of crimes occurring in Omdurman, it was decided to follow up the advantages gained and to place the whole of the province police upon the same footing.

It was not, however, until 1913 that actual steps were taken to carry out the general reorganisation based upon the lines laid down in Mr. Bloomburgh's original proposals, notwithstanding that the matter had been so long under consideration. In October 1913 active recruiting for the new force was commenced, and by the end of the next year a substantial nucleus upon which to build up an efficient body had been formed.

Every care is taken in the selection of candidates for enlistment in the Sudan Civil Police of Khartoum. Full

particulars regarding each applicant are required, such as his names in full, the names of his tribe, sheikh, and village, as well as of the mudiria (Province) and of the merkaz (District) in which the latter is situated ; imprints are also taken, on a special form, of both hands, together with a separate imprint of both thumbs and of all eight fingers. The completed form and particulars are then sent to the Central Prison, Khartoum North, for verification and future identification. If it be found that the applicant has suffered conviction for crime at any period of his life, he is at once rejected.

Policemen are required to enlist for a period of three years, and thereafter they may re-engage for a further two or more years, subject to the approval of the authorities. Quarters, clothing, and equipment are found, and the recruit, upon joining, receives 120 p.t.¹ (£1 : 5s.) per month until he has passed successfully through the recruits' drills and other physical training, and the ordinary barrack routine work necessary to qualify for full private's pay, which amounts to 165 p.t. (£1 : 14s.) per month. An onbashi (corporal) receives 195 p.t., a shawish (sergeant) 225 p.t., and a bashshawish (sergeant-major) 255 p.t. a month, while a sol talim (regimental sergeant-major) is paid a salary of from £E48 to £E72 per annum.

The pay of the Mounted Police is slightly higher. Uniforms, equipment, saddlery, and horses are found by the Government, but the camel police find their own animals, to procure which the Government advances to each recruit upon enlistment a sum of £E10, which amount has to be repaid by monthly instalments subsequently deducted from the man's pay.

The system of training laid down for the police appears to be thorough in all branches ; it includes drill, discipline, barrack routine, a complete knowledge of the Police Rules and Regulations, "schooling" (in which the policeman is taught to read and write), making out rough reports, a knowledge of Police Court procedure, method and reasons for arrests, etc.

¹ 1 piastre tarif (p.t.) = 2½d.

When the new arrangements were first introduced, only about 25 per cent of the force could read or write ; schools were, however, established, and the men compelled to make at least four attendances during each week. It is also customary to instruct the Sudan Civil Police in " First Aid " work in all branches practised. The police force of Khartoum is still a comparatively small one. The police of Omdurman are armed with .303 rifles, as are also those of Geili, while the camelry force are armed with .303 carbines. The Khartoum Central Police are furnished with truncheons only ; the mounted men, however, are permitted to carry swords. The arms carried by the police throughout the country consist of Martini-Enfield rifles. It is found preferable that all should be armed alike, with but one kind of ammunition. There are no Secret Service Police employed in the Sudan, nor are there any permanent trackers used at present ; however, it is hoped to include these two branches later on.

The Headquarters of the Police Force are in Khartoum City (Central), and here it is that all recruits are trained. The police of Omdurman are also now under the command of an Assistant-Superintendent. Khartoum Central Police have been divided into three approximately equal sections, with N.C.O.'s in proportion, for purposes of day and night duties, which are arranged in such manner that two sections are on duty alternately in six-hour watches, while the third is " resting " ; thus each section has each third day off duty, that it is to say it is relieved of public duty, since the time is occupied by training, schooling, etc.

Each policeman when going on duty is given a numbered slip on which appear the date, his name, beat or post, and the hours of his going on and coming off duty. Beats and posts are visited at various times by an officer, or the bash-shawish, who adds the time of the visit and initials the slips. Policemen who are not found at their posts or upon their beats are punished, unless they can give a very satisfactory reason for their absence.

Fortunately the planning of Khartoum town lends itself to a policing scheme in the happiest manner. There is,

indeed, no comparison between the present scheme and the old and useless "ghafir" system, which, in all but a few outlying quarters of the three towns—Khartoum, Khartoum North, and Omdurman—has been abandoned. Policemen, smart and neatly uniformed, are now to be seen at frequent beats, and the organised system of inspection is excellent.

Unfortunately the police force is still considerably below its necessary strength, but it is hoped that the increased efficiency will to some extent compensate for the shortage among the men. In Khartoum the difficulty of policing is said to be less acute than in Omdurman; the latter town, by reason of its numerous crooked streets and countless "rabbit-warrens," offers insuperable difficulties against any recognised form or system of policing, and naturally malefactors make the most of their present opportunities.

Cases of theft and burglary are common in Omdurman, and at times regular epidemics of crime exist notwithstanding the increased police engaged. The number of detections in comparison with the cases reported is naturally small. Much assistance is afforded to thieves and burglars by the absence of lights in the narrow and tortuous thoroughfares. It does not seem particularly easy to remedy this defect, since to illumine efficiently the numerous small and narrow streets which abound in old Omdurman would call for a heavy expenditure.

Gradually, however, the town is being straightened out under the auspices of a particularly competent and enterprising Inspector and Chief Town Surveyor. In a year or two Omdurman will have lost most of its old filth, inconveniences, and dangers, and will have become as clean and as safe a town as Khartoum.

Mounted police are urgently needed in Omdurman, and it is understood a small force will be raised. The existing mounted Arab police have been found excellent public servants, but owing to the smallness of their numbers they find their work heavy. Mounted upon well-trained and well-groomed camels, the Sudan Camel Police form one of the smartest and efficient bodies. It is proposed to intro-

duce, moreover, several European policemen, the want of such a corps of men being greatly felt.

It has been found that the police drawn from local sources are more popular with the inhabitants, and as regards efficiency they prove more satisfactory than the former staff drawn merely from old Sudanese soldiers and Egyptians still in the army. The towns of Halfa and Port Sudan are the only places where Egyptian soldiers are still employed as police; in each of these towns it is found advisable to retain them on account of the large number of Europeans resident therein. There have been no Egyptian troops serving in Khartoum since the year 1910.

The police uniform worn in Khartoum is strikingly effective and at the same time eminently serviceable. It consists of a French grey khaki with scarlet facings, with a white uniform for ceremonial occasions; the head-dress is composed of a "tartur," a stiff, brimless cap very high and conical in shape, somewhat resembling that of a Turkish fez, and forms the foundation for a grey and white "innua" (turban) adorned with the Province badge—an elephant's head. The uniforms are supplied to the men by the authorities; they are taught to take every care of their apparel and to present—as they assuredly do—as smart and as soldierly an appearance as possible.

The total strength of the police force in the Anglo-Egyptian Sudan is a little over 3900, there being 2301 foot and 1159 mounted police.

Taking the police force as a whole, the general efficiency has been greatly increased; still, much remains to be done in the direction of training and raising to a higher plane the whole standard of the men employed. That this will be accomplished in the course of time there can be little doubt.

CHAPTER XVII

Education—System efficiently organised by Sir James Currie, first Director of Education—Successful results attained—Lack of funds—Remarkable success of Gordon College—Primary School—Secondary School—Departments—Engineering—Instructional workshops—School fees—Hours of attendance—Curriculum—Examinations—Vacations—Teaching staff and lectures—Wellcome Research Laboratories—Auxiliary floating Laboratories on the Nile—Voluntary system—Dangers attending compulsory instruction—Improving attendances of pupils—Mr. J. W. Crowfoot.

IN seeking to know something of the economic development of a country, the first question to be put is generally, "What has been done in the direction of education?" Lord Brougham once said, "Let the soldier be abroad if he will; there is another personage—the schoolmaster. I trust to him with his primer against the soldier with his full military array."

The Sudan has enjoyed the full advantage of the combined services—of the soldier and of the schoolmaster; it has benefited enormously from both. Unlike many foreign rulers who have sternly discouraged the acquisition of all knowledge, the British, wherever they have superseded a ruling class of another race, have pinned their faith upon two things—freedom of thought in all religious matters and the education of the conquered people.

These have been among the principles applied to India, in connection with which country Lord Macaulay once asked in the House of Commons, "Are we to keep the people of India ignorant in order that we may keep them submissive?" The answer was in the negative then, and it has been so construed in relation to administering the Sudan, where a system of education suitable to the native races of the country and to the peculiar circumstances attending

the dual administration has been in force since the time of the reoccupation, with altogether excellent results.

Indeed, the educational awakening observable in the Sudan has been greater even than that which followed the English control of Egypt. The establishment of schools in towns and villages has proved one of the soundest and most judicious acts performed by the Sudan Government during the whole twenty years of its administration.

The extraordinary educational progress achieved has been largely due to following with great fidelity the lines of the original scheme for public instruction, evolved with great wisdom, care, and forethought by Sir James Currie, K.B.E., C.M.G., the first Director of Education. Disappointments, difficulties, and discouragements attended the earlier efforts, a paucity of funds continually interfering with the full realisation of certain projects forming part of the general, comprehensive scheme laid down. One may trace through the pages of the whole of the annual reports up till now issued, the same strenuous efforts to make headway against the drawback mentioned; but headway *has* been made to a remarkable degree. Indeed, it may be said that as a consequence of the sound policy adopted from the outset, coupled with the utmost having been done with the limited amount of funds disposable, the foundation has been laid for a thoroughly comprehensive educational plan peculiarly suitable to the Sudanese peoples.

The system, as prepared by Sir James Currie upon his first appointment, and subsequently established by him, comprised elementary schools, instructional workshops, higher primary schools, vernacular training colleges, and an upper school. This latter, again, was subdivided into three branches: (1) a school for the training of assistant engineers; (2) a secondary school of the ordinary literary type; and (3) a training college for schoolmasters.

Up to the end of 1905 the benefits of education conferred by the Government were confined to boys; but a demand arose at this time for a Government girls' school, and the question of establishing one at Khartoum was fully

discussed. The Director, however, did not then think that the time had come, but it has since.

There are now three flourishing "kuttabs,"¹ two being established in Rufaa and Kamlin, small villages in the Blue Nile Province, and the other in Dongola; otherwise the education of the Sudanese girls remains entirely in the hands of the missionaries. While these latter instructors unquestionably perform good work, they do not, and cannot, as Sir James Currie pointed out in his valedictory report, "command the confidence of the backbone of the Sudan community—the Mohammedan Arab."

The Gordon Memorial College at Khartoum, founded by Lord Kitchener in 1899 as a memorial to the martyred General Gordon, has an invested endowment fund of £100,000, raised in England by voluntary contributions in response to Kitchener's appeal. As the College renders great public service, being practically the University of the Sudan and the organic centre of the Department of Education, the Government naturally bear the larger part of the expense. The cost of maintenance during 1919 exceeded £35,000. Owing to the rational character and methods of instruction, pupils are prepared for practical pursuits and not made too proud to work. Kitchener was particularly keen on the policy of practical efficiency, and the vocational education of students according to their individual capabilities. Cromer, Wingate, and Currie were in perfect accord with Kitchener's views and ardently supported them. Gordon College has been marvellously successful, and has extended its fame and influence throughout Africa. Sons of prominent native chieftains in neighbouring territories are seeking admission, and administrators in distant parts of Africa are applying for native teachers trained in Gordon College.

To all those with generous hearts who revere the memory of Gordon and honour the names of the noble, self-sacrificing redeemers of the Sudan—Kitchener, Cromer, and Wingate—and desire to do their part in bearing the white man's burden, this College must make an irresistible appeal. No

¹ Village schools.

more worthy cause could be found for contributions or legacies than the Gordon Memorial College, which under immense difficulties is performing a mighty work in carrying light and civilisation into the heart of Africa and uplifting benighted peoples. The income from the present endowment fund is inadequate for the needs of this great and beneficent institution.

His Majesty the King has always evinced a lively interest in the College, of which he is the Patron. The first President, Kitchener, was succeeded by Wingate, who is now followed by the present Governor-General, Sir Lee Stack. Amongst the Trustees and Executive Committee are Field-Marshal Viscount Allenby (British High Commissioner for Egypt and Sudan), Earl Cromer, Lord Revelstoke, P.C., Lord Hillingdon (Hon. Treasurer), General Sir Reginald Wingate, Bart. (Chairman), General Sir Archibald Hunter, M.P., Sir William Garstin, Mr. M. C. Norman (Governor, Bank of England), Sir Edward Cassel, P.C., Sir Henry Craik, P.C., M.P., Mr. Henry S. Wellcome, Dr. Andrew Balfour, and Sir James Currie.

Three salient results of the work accomplished by the Gordon College under the fifteen years' masterful directorship of Sir James Currie are: firstly, a professional class has been created among the Sudanese themselves, capable of taking a share in the administration of their own country; secondly, the foundation has been laid of a widespread system of vernacular and technical instruction; and, thirdly, the original scheme of organisation, shadowed forth in the Director's report of 1900, has been in every way vindicated. The war seems to have had little or no deterrent effect upon the activities of the College, the report for 1918 showing the very satisfactory number of 6087 pupils.

The Primary Schools are far from easy to conduct, since they contain a remarkable mixture of pupils—ordinary boys, junior sheikhs, and a few military cadets—each of whom requires special consideration. The Sudanese boys in these schools are generally more healthy in appearance than the Egyptians, and show themselves uncommonly bright

in answering questions. At drill and at games in particular the Sudanese lads seem to be by far the more alert and responsive to the word of command. Moreover, they enter into the spirit of their training with unmistakable enthusiasm, their exhibition of club-swinging and single-stick being sometimes surprisingly good.

As a rule the school working hours amount to 33 per week throughout the year, the complete course of instruction extending over a period of four years. The greater amount of attention is devoted to the Arabic and English languages, together with arithmetic, geometry, geography, and map-drawing. Each week the Koran is taught to Moslem boys for three hours during the first, two hours during the second, and one hour during the third year. There is a special religious class for Coptic Christian boys. A fair number of holidays is granted. Examinations conducted upon a serious basis are held during the sessions, the subjects selected being Arabic, English, arithmetic, geography, geometry, translation, land-measuring, and handwriting.

The Secondary School, the Sheikhs' Training College, and the Engineering School display results equally satisfactory. The general organisation, moreover, appears to be admirable in each and all of these branches of the Gordon College.

While the principal educational establishment is at Khartoum, there are also schools of great merit at Omdurman, Berber, Halfa, Suakin, and Wad Medani, carrying on the curriculum of education based upon the foundations of the system at the Gordon College.

The instructional workshops attached to the College, and forming an important part of the institution, are turning out an increasing number of useful mechanics. The department is divided into four sections—carpenters, fitters, blacksmiths, and painters. Stone-cutters, builders, and potters receive their training in the Omdurman Technical Schools.

The Gordon College instructional shops were completely equipped through the generosity of a private benefactor, Sir

William Mather,¹ P.C., J.P., formerly M.P. for the Salford, Gorton, and Rossendale divisions of Manchester. The keen interest shown by Sir William in the welfare of the Sudan has also been manifested in other directions.

The Government schools are open to all pupils irrespective of nationality or religious belief. So far as possible, each child receives instruction in the religion of his parents, and if the parents object to such instruction the pupil is exempt from attending the classes at which the instruction is imparted. The school fees paid are little more than nominal. In technical schools fees are not charged. Corporal punishment is seldom inflicted, and when found necessary the head master, or some deputy in his presence, administers it. For petty offences the punishments are extra tasks, detention after school hours, or fatigue drill.

Of the Wellcome Tropical Research Laboratories established in connection with the College, I have written at some length elsewhere in this volume. The many fine and elaborately fitted laboratories are utilised for carrying on scientific investigations in connection with various diseases of man and beast, agricultural and horticultural products, analyses or assays of minerals, ores, fuels, soils, water, etc., all of which studies must prove of immense value to the scientific world; while chemical and bacteriological tests in relation to native food-stuffs, as well as the detection of poisons in use among native criminals, form part of the research work. The results naturally are greatly appreciated in every part of the globe. The principal work undertaken is in connection with tropical medicine and hygiene.

The Wellcome Floating Laboratory, an auxiliary to the Tropical Research Laboratories, is fitted and equipped with the most up-to-date scientific apparatus and appliances for tropical research and has mosquito-proof quarters for the staff. It is towed by the steamer *Culex*, enabling the scientists to penetrate even to the most deadly regions of the

¹ The Gordon College and the Sudan generally suffered a severe loss by the death of Sir William Mather on 18th September 1920.

Nile waterways to collect specimens and conduct investigations upon the spot with comparative impunity.

To Sir James Currie is due special credit for his keen foresight in recognising the immense practical value of the Wellcome Tropical Research Laboratories in promoting the economic development of the Sudan, and for his zeal in encouraging and facilitating the work of the scientific staff.

To finance the provincial schools the Sudan Government levy an education rate based on the Turkish system of tithes. The *ushur*, or tenth part, is a Government tax, and to this is added as an education rate a proportion varying from one-twentieth to one-tenth. The rate was formerly collected in cash or kind, but now it is received in money, the value of the *ardeb*¹ of grain being proclaimed annually.

Those who pay the education tax may send their sons free of charge to the vernacular schools. At first, owing to lack of belief in the advantages of education or to the distances between the schools and the houses of some of the parents, only a limited number of these availed themselves of the opportunity. However, the Sudanese attitude towards public instruction has greatly improved, more and more children are being educated every year, and established schools are now invariably well filled.

It would be neither expedient nor financially practicable to make school attendance compulsory. The conditions which exist in European countries do not prevail in the Sudan. Compulsory education makes it impossible for European parents wholly to sacrifice the interests of their children to their own selfish ends, and prevents premature work of children in factories. There are practically no factories as yet in the Sudan, and child labour, where found, would in no way interfere with a certain amount of

¹ *Ardeb*—a measure of weight (for dhura and other food cereals) varying from approximately 300 to 560 lb. according to locality; these variations cause much confusion and trouble, and facilitate cheating of ignorant natives by crafty traders. Why not adopt the metric system now used in Egypt as a uniform standard? (See Appendix E, p. 546.)

instruction being imparted daily if the parents deemed it desirable.

There is distinct evidence that the better elements of the Sudanese people are increasingly recognising the advantages of education, and frequent applications are made for new schools. Under these encouraging conditions, the introduction of compulsory education in the Sudan would appear superfluous.

The pleasure which the generality of Sudanese boys evince in their school work may be noticed in each of the towns visited; no one can doubt that the moral and intellectual welfare of these little fellows is studied with particular care. The attention paid to physical culture may be regarded as specially valuable, materially aiding both the mental and the moral improvement in view. It is reasonably claimed that the solution of many difficult administrative and economic problems has been facilitated by the inculcation of a healthy mode of life among the mass of the people. Schools of all types play a large part in the physical as well as the mental status of a rising generation, and the measures systematically adopted for Sudanese education have already been abundantly justified.

For fifteen years Sir James Currie, the first Director of Education in the Sudan, laboured to perfect the organisation and advanced the objects aimed at by the Gordon Memorial College; and when he resigned in April 1914 he must have felt perfectly conscious that his work had not been given in vain. With the spirit of an enthusiast and the capabilities of a genius at organisation, Sir James succeeded in placing the whole of the different educational departments—the schools of elementary instruction of the higher grade, of practical architecture and surveying, of applied mechanics, the training college for Arabic teachers, and the school of kadis (judges of Moslem courts)—in a high state of efficiency; it has remained for his successor but to continue upon the same sound lines of policy, which have been so fully justified by the results achieved. No finer example of judicious and fruitful educational work amongst native races can be found in history than that organised and

resolutely carried out in the Sudan by Sir James Currie, and his work will prove of immense importance to the future development of that country.

He was succeeded as Director by Mr. J. W. Crowfoot, who had been in the service of the Sudan Government for several years as assistant to the Director. He then retired to assume a position in the Educational Department of Egypt, subsequently returning to the Sudan in 1914.

CHAPTER XVIII

Transportation—Early construction—Initial difficulties and discouragements—Condition of country and people—Dongola campaign construction—Wadi Halfa—Abu Hamed line—Wadi Halfa—Kerma branch—Difficulties of pioneers—Native and Egyptian labour—Features of present railway—Gradients—Water-supply—Workshops—Light railways—Probable extensions—Some old lines—Pilgrim traffic—Kassala line.

FIFTEEN hundred miles of constructed railroad in a country owning a superficial area of over a million square miles, and within a period of thirty-eight years, seems at first glance to be an achievement hardly worthy of much comment. But it should be remembered that one is here considering a territory which has entailed the largest reclamation of mankind that has ever been attempted over so vast an area—a territory which but twenty years ago was still peopled by none but savages, divided into two classes, the Arab conquerors and the native conquered. We are dealing with a country which even "Chinese" Gordon, who knew it as well as any one of his day, condemned as a "useless possession," and of which Lord Dufferin, who knew it rather less well, advised the abandonment.

How stupendous proved the enterprise of railway construction in the Sudan after its reconquest may be gathered from the fact that, apart from the physical difficulties, which in themselves were not very serious, the vast waterless deserts to traverse, the enormous distances between town and town, and the decimated, scattered, scared, and heterogeneous tribes of people, the whole revenue of the country did not exceed the sum of £E35,000, while there did not appear to be the remotest chance of being able to borrow a penny piece from European capitalists.

Such a confrontation of adverse circumstances would have dismayed most men ; but General Sir F. Reginald Wingate, upon his appointment as Governor-General of the Sudan, so far from feeling discouraged, took a cheerful yet a cautious view of the situation, perceiving here a valuable piece of work of regeneration and reconstruction ; it is one to which he adhered without a break, without a moment's wavering of his first feeling of confidence, over his full sixteen years of valuable service as Administrator. *Ohne Hast, ohne Rast* has been the safe and sensible maxim guiding railway construction in the Sudan, and it has been maintained from the beginning until now.

The well-laid, heavy twin strips of steel stretching for hundreds of miles across the silent desert represent the mightiest and the most fruitful conquest that the Sudan has known. It is true that one misses the gorgeous scenery of, for instance, the true East ; the wild hills, the sacred shrines, and the still-standing venerable temples—none of these things are to be seen from the windows of the "Khartoum Special" as it speeds steadily upon its way from terminus to terminus.

On the other hand, there are many visible indications of England's handiwork in the form of fine viaducts, notably at Khartoum North, Kosti, and at Atbara, where hundreds of locomotives and railway coaches have their orderly home.

To the Dongola campaign—which was paid for entirely by the British Government—the Sudan owes a no small portion of its existing system, the Bill for restoring to Egypt its lost province having included a sum of £E181,851 for railways. In the end, it may be stated, it was the British Government that found this money—part of a sum of £E725,641 which the whole Dongola campaign of 1896-99 had cost, since the mean-minded members of the Caisse de la Dette, sitting in Cairo, refused to allow any charges to be met out of the overflowing and unused cash reserves which they held.

Although a so-called railway of 3 ft. 6 in. gauge—a wretchedly built and worse equipped line running between Wadi Halfa and Sarras, about 33 miles—existed in the bad

old days of Khedive Ismail of Egypt, the true railway history of the Sudan commences with the first Sudan British Expeditionary Force of 1884.

The entire length of the line from Wadi Halfa to Abu Hamed is 232 miles, the train passing from Nile to Nile. The line was projected even before, or at least during, the Gordon days, that is to say, in 1873-84; but with the usual short-sightedness and the dogmatic obstinacy of the permanent British officials at headquarters, the scheme was pronounced "impracticable" and not even to be considered. The long and waterless stretch of desert—of which they had heard but had never seen—frightened them; notwithstanding the masterly exposition of the project furnished by Major-General Stephenson, then in command of the Egyptian Forces, the War Office authorities, after consulting with Lord Wolseley, upon whose advice indeed they leaned with far too much weight, definitely refused permission to construct this line—a line which, had it been then built, would unquestionably have helped to save the life of General Gordon.

The Wadi Halfa-Kerma line, extending to 201 miles in length, was, as stated, commenced in the days of the before-mentioned spendthrift, Ismail Pasha, Khedive of Egypt, who had cherished lofty ideas of opening up the Sudan, thus converting it into an additional source of contribution to his extravagant requirements. Ismail had, however, merely constructed the line as far as Sarras, a distance of 33 miles, before he was forcibly deposed and turned out of Egypt. The British continued it as far as Akasheh, about 55 miles farther south, the line reaching there in 1884. It was only in 1897, after the reconquest of the Sudan had been determined upon, that Kitchener had carried the line as far as Kerma, situated at the head of the Third Cataract.

The track was then found to be in a rotten, and consequently useless, condition. There existed but two locomotives which, after much persuasion, could be induced to move a few yards; the rails had been torn up and the sleepers burned by the dervishes for about one quarter of

the whole length, while scarcely a waggon or coach was found in a condition fit to be put on the metals. To effect repairs effectively seemed hopeless; therefore an entirely new line was boldly determined upon. This work was carried out by Lieutenant (now Sir) Percy Girouard with a party of Royal Engineers and completed in a little over thirteen months. By June 1896, a few months only after the reconstruction had been ordered to be commenced, the work had been completed to Ambukul Wells, 68 miles from Wadi Halfa; by August 4 the rails had reached Kosheh, a farther 40 miles, while by the following May 4 the line had reached its terminus at Kerma, a total distance of 201 miles from Wadi Halfa. The work could unquestionably have been finished and the line have been in full working order several months earlier but for the irritating delay experienced in receiving the construction material and engines from England, while a severe handicap was met with in the storms of rain which washed away portions of the track as soon as it had been laid.

The sections of the Wadi Halfa—Abu Hamed railway—ten in number—offer few engineering features of interest; but the following details regarding gradients may be recorded:

		Length.	Features.
		Miles.	
	Section 1	17½	Continual incline.
No. 1	" 2	21	Many short up gradients.
No. 2	" 3	23	Many short up gradients.
No. 3	" 4	23	Many short up gradients.
No. 4	" 5	25½	11 miles of level, 14½ steep and curved.
No. 5	" 6	23	Continual descent.
No. 6	" 7	21	Slight down gradient.
No. 7	" 8	25	Fairly level.
No. 8	" 9	28	Slight down gradient.
No. 9	" 10	32	Irregular, with curves.

The principal workshops of the Sudan Government Railways are located at Atbara Junction; but a well-equipped shop is maintained at Wadi Halfa, and certain small repairs can be carried out at Abu Hamed.

The Sudan, notwithstanding physical and other difficulties, may be regarded as an almost ideal country for a system of light railways. Just as these have proved beneficial in India in assisting local traffic, so would they serve in the Sudan, where, however, the population is infinitely smaller, and many of the people are even poorer. In that vast territory lying between the Blue and the White Nile—one of the several fertile portions of the Sudan—a territory known as the Gezira, such a system of railways would prove valuable. The line has already been brought to El Obeid, the capital of the province of Kordofan, and between this town and the capital of the Sudan, Khartoum, a further connecting system of light lines must one day be constructed. In the southern portions of the country, where great marshes and swamps are met with, the introduction of railways would necessarily prove more difficult and costly; but even here there are possibilities.

The late Khedive Ismail, who considered that to maintain his hold on the Sudan he must improve his communications by means of a railway, was foolish enough to abandon the natural outlet by the route from Berber to Suakin, across 280 miles of desert, and determined to make a line through the desert along the Nile past the cataract from Wadi Halfa to Hannek, a distance of 180 miles. Contracts were made and some £E450,000 expended upon this railway; but financial difficulties then arose, and in 1897 it came to a standstill some 50 or 60 kilometres south of Wadi Halfa.

The Suakin-Berber line was subsequently suggested by the Marquis of Dufferin (who left Egypt in 1883), and his proposition was carried into effect immediately the Sudan had been restored to Anglo-Egyptian rule. The section is 332 miles, the steepest gradient being 1 in 100 and the sharpest curve 5°. There is an almost unbroken absence of regular water-supply along the route, the cost of which has been about £E1,750,000.

A glance at the railway map of the Sudan will show that the system to-day consists of a long and somewhat wavy line of track extending from Wadi Halfa in the north to El Obeid in the south, with two equally irregularly shaped

branches, one leaving the main line at No. 10 Junction and running to Kareima, and the other leaving it at Atbara Junction and running to Sallom Junction, where it again divides into two sections, one proceeding to Port Sudan and the other to Suakin. With the exception of the previously mentioned branch (from Atbara to Sallom), and those portions lying between Kosti and El Obeid and between Wadi Halfa and Abu Hamed, the railway lines closely follow the Nile, either the Blue or the White. Where the track leaves the river's neighbourhood, steamers running in connection as closely as practicable are maintained, so that to-day it is possible to travel through a great part of the country fairly expeditiously and at reasonable rates, all things being taken into consideration.

The new railway construction programme to be inaugurated is not an unduly ambitious one, but, on the other hand, forms one that had long been contemplated. With part of the capital which has been raised by the Loan of 1919 one line will be built from Tokar to Suakin, both towns being in the Red Sea Province, and another from Thamiam (in the Red Sea Province) to Kassala, the capital of the province of the same name. Other lines projected, but which are not at all likely to be proceeded with just yet, include one between Sennar and Kassala, which would place El Obeid (the capital of the province of Kordofan) in direct communication with Port Sudan *via* Gedaref and Kassala, while another would be an extension of the line which now terminates at El Obeid to Nahud, in the same province. A third project is to construct a short line between Sennar (on the Blue Nile) and Singa, the capital of the province of Sennar.

It has long been the desire of the Sudan Government to develop that part of the country south of the Nile-Red Sea railway, and the Tokar and Thamiam lines would secure the shortest mileage, while being free from any engineering difficulties. After mature consideration and careful survey, almost a straight route was determined upon from Thamiam to the town of Kassala, unless this town and the province are lamentably sacrificed to a foreign nation. Inasmuch

as the new line is intended for the purpose of developing a new country, rather than to meet the requirements of an existing market, it has been found necessary to keep the capital cost of construction as low as possible in order to give the line a fair chance of paying a reasonable return on the outlay in the near future. The line will commence at Thamiam, a station situated $127\frac{1}{2}$ miles (204 kilometres) from Suakin and $118\frac{1}{2}$ miles (190 kilometres) from Port Sudan. Some difficulty was experienced on account of the bad gradients met with, and the first idea of constructing the line which would follow the shortest way to Port Sudan had to be abandoned, and a route more lengthy but less costly adopted. The total distance is only $4\frac{3}{4}$ miles ($7\frac{1}{2}$ kilometres) more than by the first route, and this is amply compensated for by the advantages gained both in the amount of work to be done and in the few mountains met with on the line.

The new line will run very nearly due north and south, traversing a country which divides naturally into two distinct sections; the line of definition being almost exactly half-way, a less powerful locomotive will be required to haul a goods load on the southern section than on the northern. The track will have to cross the numerous and, in some cases, large khors¹ following westward from the Nile-Red Sea watershed on a line where the river's waters may be said to have a maximum flow of water (*i.e.* where their collecting area has been large, and before they have had time to soak away into the desert).

Farther west, a considerable amount of earth-work, none of which, however, is of a very heavy nature, will have to be allowed for, to provide the necessary headway for the bridges and to ease off the switchback nature of the section generally. The surface is favourable, being largely formed of gravel soil, although the actual beds of most of the khors are naturally sandy. While there will be no heavy rock-cutting to be undertaken, large quantities of loose drift sand, which is met with in one place between kilometres 55 and 60, will not improbably cause some trouble.

The length of the new line in this section will be 180

¹ *Khor*, a dry river-bed sometimes very shallow, at other times very deep.

kilometres, and the distribution of grades will vary from $\cdot 1$ per cent and under $\cdot 2$ per cent to $\cdot 8$ per cent. This latter may possibly be reduced to $\cdot 6$ per cent at a cost of about half a mile of extra line.

After the eastern slope of Gebel (Mountain) Tisafara is passed—at about kilometre 180—the northern section ends, and an entirely different country is entered; this forms the lower end of the delta of the river Gásh. The stream at this point of its course practically ceases to exist, and none other than the local surface-water runs in its channel, eventually soaking away underground. The course of the khor is with difficulty traced by a few straggling bushes, and only shows a depression of about six inches on the section. The delta and the surrounding country form one large desert-plain, sloping downwards uniformly to the north at a slope of about 1 in 1930, between kilometres 195 and 304.

Coming from the north, this plain is at first absolutely barren and devoid of any topographical features; but gradually it becomes covered with scattered tundum bushes, which increase in number until an almost impenetrable bush and undergrowth (which covers the banks of the Gash on its more southern stages, where water still runs) is reached. Apparently, however, little rain falls in this district, and that met with quickly soaks away.

While a considerable portion of the route to be followed will be desert, as the line progresses towards Kassala, say within fifty miles of that town and some distance beyond, a promising territory is entered, consisting of irrigable lands on the west bank of the river Gash.

The terminus of this new line, which, as already indicated, may—under certain conditions—be Kassala, will be located on the west side of the river, directly opposite the centre of the town. The locality selected has many advantages, but it is not altogether free from disadvantages, one of which will be that the station will be about one mile from the present “suk” (market) and customs house, with the river between. Inasmuch, however, as the latter is but very rarely fordable by camels, and the customs house has no permanent value

that will hinder it from being removed to the vicinity of the station, no great harm will be done.

Over the total length of 219 miles (350 kilometres) to which the line will extend, it is proposed to erect some eighty bridges, the majority of which will be small constructions of about 10 feet span. The more important bridges will be those at kilometre 102, consisting of three spans each of 105 feet; at kilometres 136 and 137, consisting of three spans of 105 feet, one span of 50 feet, and one span of 20 feet; and at kilometre 120½, where there will be a bridge of two spans each of 105 feet, and one span of 50 feet. At kilometre 148½ there will be a bridge of two spans of 105 feet. The total opening in 219 miles (350 kilometres) will be 3490 feet of bridging, or, say, about 16.4 feet per mile. This part of the construction will entail an outlay (pre-war estimate) of between £E45,000 and £E48,000.

Another railway enterprise decided upon (as soon as funds for the purpose* are available) is a light line from Suakin to Tokar, a total distance, over a very easy piece of country, of 56 miles. Until fifteen years ago, a 14-inch-gauge railway line was in existence between Trinkitat, a small and unsafe port on the Red Sea littoral, and El Teb, the latter celebrated in history as the battle-ground between the Egyptian troops and the Dervishes, where the former, under Baker Pasha, were mercilessly cut up and defeated; three weeks later (February 29, 1884), the place became the scene of the Dervishes' defeat by British troops under Sir Gerald Graham.

The Teb-Trinkitat railway, long abandoned, was constructed when Tokar was still considered an important military outpost, that is to say in 1896. For some years after its military value had ceased the line was used as a trolley track between Trinkitat and a place two miles south of Teb, where it came to an abrupt termination in the open plain. With camels plentiful and transportation cheap, the narrow 14-inch line was not, and never could become, of any economic value. The embankments have now partially disappeared in some places, and entirely so in others; the rails are warped, and many lie buried in the sands accompanied by stray

trolley wheels and discarded fishplates and bolts. Some of the better-preserved rails were removed some years back and used upon a light railway elsewhere. Little is permitted to be wasted in the Sudan, and the spirit of official economy, the "looking after the saxpences," which has characterised the administration in other directions, has been closely observed in regard to railway construction and maintenance. If this can be regarded as a fault at all, it is at least a fault upon the right side. The new Suakin-Tokar line, when completed, should prove of great economic value to the rapidly expanding area of cotton cultivation carried on immediately around Tokar.

Most, if not all, existing transport difficulties would disappear in connection with the Tokar-Suakin railway. The construction would prove anything but costly, the work could be carried out with great rapidity—one estimate put the time necessary at but forty-five days—and the returns would be satisfactory; the revenue would not be confined to the Tokar cotton crop, although this in itself would no doubt fully justify the construction of the line. A considerable amount of traffic, both goods and passenger, could be relied upon practically all the year round, and during the five busy months of the year (from January to May) the line would probably receive more freight than it could handle.

During the past few years the imports into Tokar have fully equalled the exports in quantity. Many thousands of pilgrims to Mecca from Central and Western Africa pass through Suakin and Tokar, and the greater portion of these, who like to economise in time and who mostly have money, would avail themselves of the railway, which would save them from five to ten days' road-travelling. Then there is a large amount of cattle and other live-stock trade carried on with Egypt which would fall to the lot of the railway; the long march, 50 to 60 miles across the desert, which must now be taken debarbs many cattle-owners from sending their animals to market, especially as the grazing met with *en route* is of the poorest quality. It would appear, then, that the prospects of a Suakin-Tokar line are particularly bright.

Each country has at various times to face its own particular troubles with regard to its railways, especially during bad weather. Thus the majority of European lines suffer occasionally from inundations and strong winds, which tear down telegraph poles wholesale, destroy bridges, and play general havoc with the tracks. South American lines, even more frequently, become impassable, and river-bridges are washed away, owing to inundations ; while North American and Canadian railways must face snow-blizzards, which for days together completely block traffic, as well as forest fires, which destroy both track and station buildings.

The Sudan likewise at times has its trials, sand-storms and floods, in their due season, occasioning much delay in the running of the trains, although, perhaps, no great damage in so flat a country ensues. In the sand-storm months—during April and May—gangs of men are frequently employed in clearing the tracks of the sand which lies several inches deep, while the north wind can become so strong as to prevent even a powerful engine from proceeding against it. Then, again, wash-outs occur during the flood seasons, especially disastrous visitations of this kind having been experienced between Shereik and Abu Hamed in times past.

CHAPTER XIX

Transportation (*continued*)—Steamers from and to Europe—Experiences with some disagreeable passengers—The objectionable "Anglo-Indian"—The "Officials' route"—The Union-Castle Line—Advantages offered by the Port Sudan route—Some other lines—Sudan Development Company's experiment—Government river steamers—The fleet—Transfer of steamers to the Railway Department—Economy and efficiency obtained—Fuel—Departmental administration—Revenue and expenditure for the year—Substantial surplus anticipated for 1914 not realised.

THE ocean voyage from Marseilles to Port Said is by many travellers counted the least interesting part of the journey to Egypt and the Sudan. From the comfortable and expeditious trains run by the Paris, Lyons et Méditerranée Compagnie to the usually crowded decks and cabins of the different steamship companies' liners is a transition of doubtful advantage. The class of passengers met with during the months of September or October to January or February, especially upon the steamers of the P. & O. Company—the "official" line *par excellence*—is mainly composed of the military and civilian official element returning to India or Egypt from leave, and it is regrettable to add that it is far from an agreeable class socially.

There can be few individuals more intentionally offensive than the junior service man and his wife, who may have seen some two or three seasons in India. They may leave Europe with all, or many, of the social charms possessed by most Englishmen and Englishwomen, but apparently there is some blighting influence in the atmosphere or surroundings of the East which dries up or vitiates the vein of friendliness and natural amiability of men and women, causing them to return, after but one year's sojourn, entirely changed in disposition and manner. This is a phase, and a very deplor-

able phase, which has been observed and commented upon by numerous, one might truthfully say by *all*, travellers who pass frequently between East and West, and who are thus in a position to form a definite opinion ; it is a phase which has helped to confer a distinctive term of reproach on the class of individual known as the " Anglo-Indian."

Among the men it seems sufficient that they should occasionally wear the King's uniform to entitle them to treat with insolent disdain all passengers who can lay claim to no such distinction ; the supercilious, complacent, and intensely insulting mannerisms of these ornaments of the British army have provoked—and no doubt will continue to provoke—commentators to denounce British officers as both snobs and cads. Indeed, the conduct of those individuals not seldom calls for condemnation in verbal terms more emphatic.

The pitiful efforts of their women-folk to assume the manners of *grandes dames*, or such as they in their ignorance conceive to be the manners of *grandes dames*, occasion more amusement than anger upon the part of the observers ; but while, perhaps, these latter may derive some small amount of entertainment from studying the absurd poses and the clumsy endeavours of these women to appear " haughty " and " stately," there is, as a fact, produced upon the ordinary individual a feeling of intense regret that any section of the governing class should so conduct themselves as to occasion a sentiment of contempt and dislike among the great majority of their fellow-passengers.

It is, as observed, mainly among the younger and less experienced official element that this reprehensible and indefensible attitude towards their *compagnons de voyages* is to be found ; the older class of traveller at least recognises the necessity of showing an outward courtesy—no one expects or desires to find anything more than this—at the common table or on the promenade deck. But the average Indian officer and his wife, or their sister, will complete the entire voyage between Marseilles and Bombay without exchanging a single word with his or her cabin or table companion, deeming it unnecessary to do more than

appear sociable with the members of his or her particular "set."

In all probability, the idiosyncrasies and peculiarities of the first-class P. & O. passengers have not altered at all—and certainly not for the better—within the last fifty years. All the objectionable traits manifested by the service man and his wife—especially his wife—of which observant writers (and those who never write) have complained so bitterly, survive. Apparently this type of Anglo-Indian never alters and is unalterable. You still have to brave the quizzing of

Dames whose easy-chairs in goodly row
Fringe either deck of the P. & O.,
Who sit in judgment on the bill of fare
While others court a nobler care.

There is perhaps less horse-play among the men, but certainly no less ill-natured gossip among the women. Many a young man's reputation is torn to shreds and many a young woman's social happiness completely destroyed by these evil gossips during the brief period of a voyage between Marseilles and Bombay.

The rudeness of these people to those whom they do not know is only equalled by their furious offer of hospitality to those to whom they have been introduced. With these gentry it is quite usual, five minutes after a first presentation, to ask one to come and spend a month with them. A man's reputation and breeding count for rather less than a pleasing exterior and some remote connection with the ruling class. For sheer, unashamed snobbishness—which, as Thackeray declared, is the peculiar weakness of Britons—the Anglo-Indian is hard to beat. It is the same genre of the rising generation at Eton and Harrow who display hostility instinctively towards the tradesman's son. There exists no law which prevents the latter from sharing the educational advantages of these excellent schools; nevertheless the boys themselves take good care that if a shopkeeper's son finds his way among them he shall not stay very long.

One can sympathise to some extent with the Anglo-Indian woman whose life ordinarily—and particularly at an up-country station—is dreariness and loneliness typified.

She is less well off in resources than the wife of a Sudanese official, who is sternly discouraged from bringing her to the Sudan unless he be stationed in some place, such as Khartoum, Atbara, Port Sudan, or Wad Medani, where there is to be found an established, if limited, European settlement.

Condemned by the exigencies of the Eastern climate to remain at home between the hours of 8 A.M. and 5 P.M., with no definite occupation but that of reading novels or newspapers many weeks old, and the only excitement a game of tennis and an occasional hand at bridge—when a sufficient number of players can be mustered—it is only natural that gossip should be indulged in furiously when the abundant and unrivalled opportunities offered on board ship present themselves. What is most to be regretted is the corrupt effect of life in the mofussil upon even the naturally sweet-dispositioned woman after but a very brief sojourn in its midst. The milk of human kindness seems speedily to become dried up, and a predilection for malicious scandal and acrid censure of everything and everybody to take its place.

The average Anglo-Indian official, on the other hand, when once the rigid austerity of his mannerisms has been overcome and a human soul has been revealed beneath the severe exterior, often proves himself an agreeable and amusing companion. Even if one has, perforce, to listen to his inevitable and unending complaints, the pining, carping spirit of discontent, and frequently the captious criticism of his superiors, there is often a wealth of information to be gleaned by the patient listener and much that is of value to the uninitiated. The splendid administrative work that has been done, and that is being done day by day, by the British official in India could not be excelled by any class of government agents in the world. And the same may be said with equal truth of the British official in the Sudan.

Even among these exalted personages, however, bitter enmities, senseless jealousies, and scandalous gossip would appear to prevail. If the other passengers, who are rigorously excluded from the social ring maintained by the Anglo-Indian element, could but appreciate the fact, they are really fortunate in thus escaping closer contact with the usually

uninteresting, unintelligent, and self-absorbed class referred to ; admission to their closely guarded ranks merely entails the penalty of listening to their endless complaints, the exaction of one's sympathy with their selfish and often sordid strife, and being drawn quite involuntarily within the vortex of their interminable jealousies and disputes. It has also been noted by the observant onlooker that the more arrogant and more intolerant the official the more obsequious his attitude towards the recognised superior ; the precise number of rupees which represent their official salaries would appear to regulate and dictate the degree of outward respect which they deem it necessary to evince. Snobbishness *in excelsis* controls the conduct of the average Anglo-Indian both when in office and on furlough. He forms—with his equally disagreeable womankind—quite the most objectionable and offensive class of fellow-traveller that one can be called upon to endure.

Officials returning from or proceeding to the East cling to the P. & O. service principally because it is the most dependable in regard to schedule arrivals and departures ; in fact, no other line serving the East can compare with the P. & O. in this respect. To the majority of those travelling on furlough, a day, or maybe even a few hours, gained or lost on the journey may prove of consequence ; hence the greater popularity of the P. & O. To that not inconsiderable body of travellers, however, to whom the time limit is of less moment, the Austrian-Lloyd service *via* Trieste, notwithstanding the objectionable precision with which the Company's vessels were run by machine-like martinets (the same service is now conducted under the Italian flag), or the French route *via* Marseilles, allowing for the extremely inconvenient hours at which first-class saloon meals are served, offers greater attraction by reason of the fact that the upstart British official and typical Anglo-Indian element are usually, but not invariably, avoided. And it is a reason which evokes peculiar sympathy upon the part of those who understand it. The Austrian-Lloyd service, of course, was closed during the war.

Now that it has been rendered possible to reach Port

Sudan from England and the ports of Europe by means of the comfortable and moderately rated steamers belonging to the Union-Castle line, the number of passengers likely to enter the Sudan by this route may be expected to increase considerably. So long as one was compelled to travel thither either by a small-sized and space-cramped vessel belonging to the British India line, or by one of the expensive if more comfortable boats put on occasionally by the Ellerman and City line, or, again, by one of the less well equipped Austrian-Lloyd steamers (which called at Port Sudan as they would or would not), few travellers cared to adopt this route, notwithstanding the alternative of taking the longer and more costly Nile River journey, with the accompanying discomforts provided at extravagant fares by the Egyptian State Railways.

Doubtless in time even these drawbacks will be modified or completely removed ; under a liberal and broad-minded combined management they should be deemed unworthy of twentieth-century travel, when the innumerable existing opportunities for providing a thoroughly efficient and moderately priced passenger service between England *via* the Continent, and the Sudan are taken into due consideration.

The comforts and conveniences offered to passengers on the Union-Castle line of steamships, and which are not confined to the first-class passengers either, are many ; but the designers of these boats have not yet learned the wisdom of providing bunks for persons who stand over 6 feet in height. Men who exceed this stature must perforce put up with the extreme physical discomfort of a cramped position, since few bunks are over 6 ft. 6 in. in length, and some of this space is necessarily taken up by the pillows. Space has been monopolised by cupboards and wardrobes, some of which, at least, might have been dispensed with, or preferably placed in a different part of the cabin. But for this disadvantage and for the comparatively narrow dimensions of the majority of the state-rooms, even the most critical passenger could find little cause for complaint. Ample space on the decks, handsome recreation- and dining-rooms, and a generally well-ordered ship, with courteous

and attentive officers, are the main features of the Union-Castle fleet of steamers.

Whereas the Union-Castle line at present run but one boat a month to Port Sudan, the Khedivial Mail Steamship Company conduct a weekly service during the tourist season (January to May). For the remainder of the year the service is fortnightly. The two services, however, cannot be compared for comfort and convenience, the Khedivial service being inferior in all but the amount of the fares. Nevertheless a considerable number of passengers patronise the line on account of the more frequent service. Moreover, the boats go on to Suakin, which is not the case with the liners of the Union-Castle Company.

Passengers on arrival at Port Sudan at 10 A.M. on Saturdays meet a special *train de luxe* composed of sleeping- and dining-cars which awaits the steamer at the quay, and leaves at 1 P.M. for Khartoum, arriving there at 3 P.M. on Sundays; the distance is 492 miles. Returning by this route, the train leaves Khartoum on Mondays at 10 P.M., arriving alongside the steamer at Port Sudan at 10 P.M. on Tuesdays; passengers can arrange to pass the night on board, as the steamer sails on Wednesday at noon. Arriving at Suez on Saturdays at 10 A.M., it connects with the noon train to Cairo from Rue Colmas Station, Suez, to arrive at Port Said 3.10 P.M., via Ismailia, at Cairo at 5.5 P.M., and at Alexandria, via Benha, at 9.5 P.M.

Thus from Cairo to Khartoum by this route, including sleeping-car, the journey can be made with only two changes, viz. train to ship at Suez Docks, and ship to train at Port Sudan; the Nile Valley route involves rather more changes, and the cost of the journey is considerably greater. Special return tickets from Cairo enabling passengers to proceed by Red Sea and return by Nile Valley route are issued, and these can be made to include sleeping-car from Port Sudan to Khartoum.¹

¹ Since the above account of transportation arrangements was written, considerable alterations in, and, in some instances, severe curtailments of, both steamship and railway services have taken place on account of the war and the partial cessation of the ordinary tourist traffic, and which, at time of going to press with this volume, had not returned to the normal.

The Sudan Government took over the Steamers Department from the Egyptian War Office on January 1, 1902. The fleet at that time consisted of three sections :

I. ASSUAN—HALFA REACH :

S.W. IBIS . . .	} All these boats were from the fleet brought out in 1885 for relief of Khartoum Expedition.
" TOSKI . . .	
" TANJORE . . .	
" AMBIGOLE . . .	
" SEMNA . . .	

Screw Tug HORUS.

19 Barges for Troops and Cargo.

45 Gayasas and several Feluccas.

The offices and workshops were then at Assuan.

II. DONGOLA REACH :

S.W. ALEXANDRA . . .	} Part of 1885 fleet.
" WATER-LILY . . .	

2 Barges for Troops and Cargo.

15 Gayasas.

— Nuggars.

— Feluccas.

There were then small repair shops at Merowé.

III. KHARTOUM REACH :

SULTAN . . .	} Twin-screw Gunboats built at Abadin, 1908.
MELIK . . .	
SHEIKH . . .	
FATEH . . .	
ZAFIR . . .	} Stern-wheel Gunboats built at Kosha, 1905.
NASIR . . .	
TAMAI . . .	
HAFIR . . .	
ABU KLEA . . .	} Stern-wheel Gunboats from 1885 fleet.
MATEMMA . . .	
DAL . . .	
AMARA . . .	
AMKA . . .	} Stern-wheel Steamers from 1885 fleet.
HANNEK . . .	
KAIBAR . . .	
OCEAN . . .	
VIXEN . . .	} Screw Tugs.
ISIS . . .	
TAHRA . . .	} Paddle Steamers captured from dervishes, 1906-1908.
BORDEIN . . .	
SAFIA . . .	
ELFIN . . .	
TAUFIKIA . . .	

33 Troop and Cargo Barges.
67 Gayasas.
66 Nuggars.
18 Feluccas.

The offices and workshops were also at Omdurman.

Since 1902 the fleet has received several large additions while the works and repairs plants have also been considerably increased.

The present fleet is composed as follows :

I. ASSUAN—HALFA :

7 Stern-wheel Passenger Boats.
1 Steam Screw Tug.
2 Steam Launches.
2 Motor Launches.
Barges for Troops and Cargo.
Gayasas.
Feluccas.

A large floating dock has recently been added to the dockyard which is now at Halfa, and this reach is now under the control of the Sudan Government Railways.

II. DONGOLA REACH :

3 Stern-wheelers.
1 Screw Tug.
1 Steam Launch.
Troop and Cargo Barges.
Gayasas.
Nuggars.
Feluccas.

The works and offices are now at Karema, while the reach is also under the control of the Sudan Government Railways. The transfer took effect February 1, 1913. The change was due to the inconvenience under which the Steamers Department had been labouring in directing the two branches of its service from a considerable distance, whereas the Railway Administration can do this with less difficulty. Besides, a considerable saving in expenditure may be effected, since the staff of the Railway at Port Sudan and Karema may be able to carry out a good deal of the work hitherto done by the Steamers Department staff at those places ; thus necessity for maintaining a double staff has likewise been obviated.

III. KHARTOUM REACH :

The fleet in commission at present consists of—

- 3 Twin-screw Gunboats.
- 7 Stern-wheel Gunboats.
- 18 Stern-wheel Passenger and Cargo Steamers.
- 4 Side-Paddle Steamers.
- 16 Screw Tug-Boats.
- 10 Steam Launches.
- 6 Motor Launches.
- 99 Troop and Cargo Barges.
- 35 Gayasas.
- 36 Nuggars.
- 75 Sailing and Rowing Boats.
- 2 Steam Ferries.
- 2 Small Dredgers.

The works and head offices are now at Khartoum North, with branch offices at Khartoum, Dueim, Kosti, Gambela, and Taufikia, where there is a small repair shop.

The dockyard at Khartoum North is well equipped with up-to-date machinery, and is capable of dealing with all necessary repairs and rebuildings. The machinery is electrically driven, power being obtained from a producer gas plant. There are two floating docks and new slipways.

The regular river services are :

Khartoum-Rejaf	.	.	.	2200 miles return
Khartoum-Gambela	.	.	.	1724 " "
Khartoum-Wau	.	.	.	1796 " "
Khartoum-Roscires	.	.	.	804 " "

Some years ago a separate steamboat service belonging to the Sudan Development & Exploration Company, Limited, was run upon the White Nile between Khartoum and Geteina, with stopping-places and agencies at Omdurman, El Dueim, Goz, Abu Goma, and Singa. The enterprise after some nine years' experiment proved unsuccessful, notwithstanding the fact that the Government guaranteed 3 per cent on the capital and had actually paid in this form £E10,705 during the time that the agreement had remained in force. On October 31, 1911, the Sudan Government took over the whole of the Company's transport assets, for which was paid the sum of £E60,450 (about £62,000 sterling).

Since then the Government has retained in its own hands the whole of the Nile transport arrangements, and no further competition, it may be assumed, will be encouraged. From the point of view of the Administration the acquisition of the Sudan Exploration Company's business and fleet was good policy, since it not only removed an irritating and important competitor against both the Steamers and Railways Departments, but gave complete freedom of action to regulate freights in the best interests of the country. To the railways in particular this represented a gain in the form of abolition of competition for the transport of gum from Kosti, on the Nile, the port for the province of Kordofan.

CHAPTER XX

Transportation (*continued*)—River steamers—The White Nile fleet—Type of boats—Some drawbacks to present arrangements—The Dongola Reach—Class of passengers and traffic carried—Barges in tow—A trip up the White Nile—Through the "Sudd" region—Dr. Wm. Beam's "Sudd" researches—Produces fine quality paper pulp—"Wooding"—Antiquated methods—Much noise and more delay—Question of coal briquettes—Departmental enterprise—Uganda transit facilities—Advantages offered to sportsmen.

UPON the upper reaches of the Nile the steamer service is but little used except by the official classes and the natives. Consequently the steamboats are found to be smaller than the fine vessels plying from Shellal to Halfa and from Khartoum to Rejaf, and they are but partially equipped.

The traveller must be prepared to provide his own bedding upon some of the boats, and his food upon most of them. There are, however, kitchens, and bathrooms which are maintained in a state of cleanliness, the general condition of the boats, indeed, being above reproach. With one's own camp equipment, provisions, and native servants, it is possible to live comfortably during a long steamer run upon the Nile, such as that between the points mentioned, and upon others of longer or shorter duration.

While it is as well not to depend too closely upon replenishing one's supplies and preserved provisions by means of local purchases, it is generally possible to obtain fresh meat, fish, chickens, and eggs from the natives dwelling along the banks of the river, while, occasionally, some few vegetables and green meat may be found available. Bread is almost impossible to get, since the natives themselves but seldom make it, while it would not be practicable to bring anything like a sufficient supply from any large

town owing to the dryness of the atmosphere and the effect which it has upon white bread baked in the customary way.

An ordinary native servant will turn out a moderately appetising meal from the supplies of preserved foods referred to, while drinkable water (which, however, should be filtered for greater safety) is available. Everything in the way of table-service and lighting arrangements must be provided, since not even a plate or a spoon, a towel or a piece of soap, may be found upon the steamer. The Government steamboat service undertakes to do nothing beyond conveying the traveller from place to place, with the reservation that "it (the Government) shall not be held responsible or liable for loss or damage arising from any delay in the commencement, continuation, or completion of the voyage."

The steamboats plying upon the upper reaches of the Nile possess only a limited amount of passenger accommodation, ranging from two first-class and four second-class cabins on the *Alexandra*—one of the most simply and most economically run vessels of the fleet—to six first-class and eight second-class on the *Kaibekah*. The latter, a newer boat, has proved rather a costly and unsatisfactory craft, notwithstanding her handsome equipment (including an installation of the electric light) and her more ample proportions.

The third-class passengers, who numerically predominate, are accommodated in one or two barges which are attached one upon either side of the steamer and floated down- or up-stream. These barges, built of iron and wood, are two-deckers, the lower deck being reserved for the animals—camels, donkeys, sheep, and goats, of which a large number are always being transported—while the upper deck is occupied by the native passengers with their women and children—also, as a rule, exceedingly numerous.

The close proximity of these usually heavily-laden barges, with their noisy, chattering freights of men and women and loudly complaining animals, separated as they are from the first- and second-class passengers upon the steamer by nothing more substantial than an iron railing or a canvas

wind-screen, forms perhaps the most objectionable feature of Sudan river travelling, reminding one of similarly unpleasant arrangements in force upon the steamboats plying upon the La Plata and Uruguay Rivers in Argentina, the Magdalena River in Colombia, and the Brahmaputra and Hooghly Rivers in India.

When the Sudan river steamboat stops for the night at a "wooding" up-station, the barges can be removed some distance away, and this arrangement relieves the steamer passengers, temporarily at least, of their more disagreeable neighbours.

Nothing in the way of freight, however small, is refused. As much as 200 tons can be accommodated upon the steamers running between Kareima and Kerma (on the Dongola Reach) and which serve the different towns between these two points. The freights are composed of dates, dura, wheat, and living animals, such as camels, donkeys, sheep, goats, and a few horses.* During a short season the Dongola steamers make between 30 and 35 regular voyages and a number of special trips.

The White Nile fleet of steamers probably numbers over thirty vessels, large and small. Some of these have been in service upon the Nile for forty years, among them being a few of the original steamers which were dragged over the cataracts as far as the fourth—by sheer pluck and persistency—at the time of the 1897 campaign. So "impossible" was this feat deemed to be that a well-known general in England publicly denounced the mere attempt as a "madly impracticable scheme." Nevertheless, it was not only attempted but achieved, and without sustaining the loss of more than one boat and of not one human life.

The *Gedid* and the *Omdurman* types, which represent the largest steamers in the service, have already been proved unsuitable for the river traffic (being too long to take the sharp turns of the river above Lake No, and drawing too much water to pass the Abuz-Zeit shallows), while that of the *Amara*—which is about two-thirds of the size and length—has been found the most convenient as well as the most economical, burning but £12 worth of wood

per diem as against £19 worth swallowed up by the larger boats' furnaces.

Those who would penetrate into the interior of the Sudan and wander off the beaten tourist track must be prepared to face temporary inconveniences and occasional discomforts during their river, as upon their desert, journeys. The Sudan is not as yet—nor can it be for some years to come—regarded as a land of easy travel. If we except the express railway and steamship services between Halfa and Khartoum and between Khartoum and Port Sudan, there are few luxurious modes of travel available. Nor, indeed, could such be expected in a country scarcely more than twenty years free from savagery. The wonder is that safe conduct and regular means of transport should be possible at all, where, but so recently, there roamed wild Dervishes, crying "death" to all foreigners and scouring the country unchecked and uncheckable. If luxury cannot be found, and if, save in some few instances, organised establishments for the traveller are not provided, there is at least a complete absence of danger to life or property, and it may be said with perfect truth that the stranger may direct his steps, with one or two exceptions, wherever the Anglo-Egyptian Administration holds sway—and that is over the greater part of the Sudan—with as much safety and confidence as he would feel anywhere in Great Britain itself.

Effort is made to render the different steamboat services on the Blue Nile, the White Nile, the Sobat, and the Pibor Rivers as remunerative as possible, consistently with the introduction of reasonable freight charges and moderate passenger fares. Europeans seldom travel third-class, but those who do so can obtain better accommodation by paying special rates for space on the upper decks of the barges, which are almost always hauled up or down the rivers by the steamers, each steamer taking two and sometimes as many as four. The barges are either lashed firmly on either side or are pushed before; occasionally a steamer will travel with a barge upon either side and two more, placed in triangular form, in front.

There are "express" boats and local fast-boat services, the accommodation consisting of first-, second- and third-class, the latter, again, being subdivided into "special" and "ordinary." Reduced fares are charged to Sudan Government Department employees, to the Egyptian Army, and to the Army of Occupation.

During the winter months (November 1 to April 30) there is a special tourist rate for first-class passengers between Khartoum and Gondokoro. All the larger steamers are in charge of European engineers. Rejaf is now the terminus.

Were it but possible to avoid or to abbreviate the long stops which are made at the different wood-stations, and could the native-laden barges which accompany the passenger steamers upon either side like noxious parasites be withdrawn, the journey up the White Nile would prove the most interesting of any to be made in the Sudan. It is full of novelty even to the experienced world-traveller, for it affords an unrivalled opportunity of seeing the natives as they pass their ordinary daily lives, and wild beasts roaming their habitats upon land and water. Immense herds of elephants—sometimes attaining to one hundred in number—scores of ungainly hippopotami, hundreds of obnoxious crocodiles, and occasional wandering lions and leopards, in addition to great herds of all kinds of antelope and countless flocks of aquatic birds, vary the monotony of a voyage which normally lasts from twenty to twenty-two days.

The comparative peacefulness of a journey upon a well-appointed steamer which pursues its placid way upon the bosom of unfamiliar and untroubled waters, undoubtedly appeals to the jaded man of business who may be in search of a rest-cure, while to the younger and more active the frequent opportunities which are afforded for landing and "having a pot" at something alive and naturally anxious to get away, have attractions all their own. If the voyage is one which probably but few travellers would care to undertake more than once, it is also one which none who have experienced it would willingly have missed. Thus the number of tourists who embark upon the Nile steamer-trips

become larger by reason of the attractions which are offered being freely spoken about and recommended; this, after all, forms by far the best method of advertisement.

Even the three days' passage through the interminable "sudd" possesses attractions for some travellers, since it affords a spectacle not met with in any other part of the world. I have seen the thick and sometimes deadly vegetation of other great navigable rivers—the Amazon, the Orinoco, the Paraná, and the Magdalena,—but none of these can compare with the Nile in point of natural and yet abnormal vegetable growth. If, as is believed, this same growth can be made commercially valuable, a new source of wealth would be opened up for the Sudan, the limits of which are almost indefinable. The late Dr. William Beam, Chief Chemist to the Wellcome Laboratories, Khartoum, after extensive researches produced from these "sudd" papyrus growths a pure white pulp suitable for the production of writing paper of suitable quality.

While the Bahr-el-Ghazal still remains encumbered with floating islands of "sudd" and has to be periodically cleared of them, the White Nile, which formerly suffered equally if, indeed, not more severely from a similarly serious impediment to navigation, is now quite free from it. Since 1902 the whole length of the waterway has been open to steamers uninterruptedly, but only during the past few years has a regular service of passenger boats been maintained.

Both the Rejaf and the Sobat Rivers run too swiftly to enable the floating vegetation to become a nuisance, and although it was at one time feared that the former might become affected by the released blocks of "sudd" which had been cut away, this did not occur in actual experience.

In order to render the White Nile and Blue Nile steamer services more efficient and popular and at the same time less costly to run, certain alterations might with advantage be suggested. Primarily a great deal of time appears to be lost upon the up-stream voyages. Not only is the wooding a prolonged and tedious undertaking as at present carried

on, but lengthy and—as it seems to the observant traveller—many unnecessary stoppages are made at small and unimportant stations.

Were a different system of taking on wood introduced—and nothing much more primitive than the present method could be imagined—and were the regulation stops at the up-stations reduced to schedule time, the length of the journey could be so abbreviated as to permit of two voyages up and down river being performed in the time now occupied by one.

The three steamers which run between Khartoum and Taufikia during the winter months—augmented by the Sobat River steamer, which is put on only in summer—might thus well be reduced to two, each performing the journey twice instead of but once every four weeks. At present, perhaps, barely sufficient cargo and passengers offer to warrant a more frequent service, but when—and if—the projected French Congo light railway is built, the demand for co-ordinating White Nile river transport will greatly increase.

The wood destined for the steamer's furnaces—consisting mostly of trunks of narrow-girthed trees, a number of crooked and twisted branches, and a small amount of drift-wood—is stacked in orderly piles upon either bank of the river, each pile measuring a certain number of cubic metres. Upon the arrival of the vessel at the wood-station, a small army of coolies commences to deal with the quantity to be taken on. To each coolie are slowly handed, by an overseer located at each pile, perhaps as many as half a dozen logs; some of the coolies will be found carrying but a single log, and with this inconsiderable load they wander slowly towards the side of the vessel, upon the lower deck of which they carelessly cast their burden with a deafening clatter. From the deck upon which it has been cast, the wood has to be taken, piece by piece, to the ship's hold, and, when required for the furnaces, again piece by piece it has to be taken there.

The shore labourers are employees of the Government Woods and Forests Department; their pay, while small

individually, amounts to a considerable sum when taken in the monthly aggregate, several hundreds of men being employed at the different wood-stations—ten in number—which are located between Khartoum and Rejaf, on the White Nile.

It seems to the onlooker that were the logs and faggots tied together in bundles they could be transported either by a small hand-crane carried upon each steamer or by fewer coolies. The bundles could then be deposited by one instead of by four operations close to the furnaces; consequently but one-fourth the number of men would be necessary. An infinite amount of noise, confusion, and litter would be spared, and this would unquestionably tend to remove one of the causes of complaint upon the part of passengers on these steamers—the uproar which proceeds so frequently, and for such prolonged periods, at night as well as during the day upon the up-stream journey.

If the administration of the steamers find it impracticable to make greater use of coal briquettes instead of wood for fuel—and it is a moot question whether a saving in cost could not be effected when such factors as time, economy of space, and an increase of the steaming power are taken into consideration,—then a complete change in the present leisurely and slovenly wood-loading operations may be recommended.

A certain quantity of coal briquettes is already carried on the steamers, but these supplies are regarded as reserve fuel, only to be drawn upon in case of necessity. So long as wood is available, the coal supply remains untouched.

It is quite clear that the Government will have to find some way out of the difficulties which are offered by the scarcity of wood. Little can be hoped from the one-time promised assistance of sudd fuel; this has been tried and found to be lacking in many essentials. Even supposing, however, that it were as successful as it appears to have been unsuccessful, the cost of transportation to any considerable distance from the one factory—located several hundred miles from either end of the White Nile steamer route—would render its general use highly improbable.

There remains the possibility of employing crude oil motors, but before this could be effected a general conversion of the propelling power would become necessary, and this might prove very costly. It is also doubtful whether screw-propellers would be found suitable for the light-draught vessels which must necessarily be employed upon the Sudan rivers.

Where so many improvements in river transport have been already introduced—and no one who knew the Nile steamer service, say eight or nine years ago, will deny that they have, indeed, been remarkable—one may reasonably expect the march of progress to be maintained.

If the Sudan Government has shown commendable enterprise in organising a complete and convenient passenger steamer and train service—under difficulties of a very discouraging nature—that of the neighbouring State of Uganda has earned equal distinction; for the service which is established in connection with the Sudan is both luxurious and reliable. From the official reports to hand it is satisfactory to know that under normal conditions this enterprise is rewarded by financial success, and in this respect the Uganda Government had—up till recently—been more fortunate than that of the Sudan, which has yet to see its river services result in a handsome annual profit.

Tourists and travellers—including, of course, sportsmen after big game—may now easily, if not speedily, enter the Sudan from Uganda, or reach Uganda through the Sudan. In either case the outward journey from Europe may be made without touching Egypt, that is to say, one can take a steamer from England to Port Sudan (on the Red Sea), enter the Anglo-Egyptian Sudan by that gateway, and proceed thence (*via* Khartoum) up the White Nile to Rejaf;¹ or, alternatively, one may take a steamer from England to Mombasa, on the East African coast, and proceed by railway through Portuguese territory and Uganda (a

¹ Rejaf is now the recognised terminus for the Government steamers on the White Nile, the Gondokoro station (situated but a short distance away) being closed since 1913 on account of the prevalence of the sleeping sickness.

distance of 30 miles), thence (*via* Entebbe) by road and river to Khartoum; or, again, one can join up with the handsome and comfortable steamers which serve Lake Victoria. There should be in years to come a considerable tourist traffic—already an important factor—between the Sudan and Uganda; both Administrations have done, and are doing, their best to consolidate and improve yet further this interchange of tourist travel.

CHAPTER XXI

Port Sudan—Comparison with Suakin—Lighting arrangements—Annual cost—Safety of harbour at night—Depth of water—Harbour lights and beacons—First vessel to call—International shipping—Steamship companies' boats making regular calls—Climate—The new town of Port Sudan—Scenic attractions—Value of building-land—Restrictions and regulations—Insect pests—Berths—Quays—Mechanical equipment—Board of Harbours and Lights.

THE earliest of the charts of the Red Sea coast indicate the existence of a large natural harbour, known as Sheikh-el-Barghut, some twenty-nine miles north of Suakin. Fewer dangerous reefs mark the inlet than is the case with Suakin ; the entrance is wide, and the formation of the harbour is such as would permit of vessels of very considerable tonnage freely swinging without difficulty. After due consideration, the Sudan Government decided to obtain expert opinion as to the merits and demerits of this harbour as compared with that of Suakin. A Commission visited both places in the summer of 1904, and in September of that year reported in favour of Sheikh-el-Barghut. Five years later the new harbour, under the name of "Port Sudan," was formally opened by the ex-Khedive.

Port Sudan was then selected as the terminus of the railways and as the port of the Sudan, owing to the difficulties connected with the approach to Suakin. Some critics still persist in their opinion that it would have been wiser to have kept to the latter port, but the majority of experts are against them. The disadvantages of Suakin, as mentioned, are greater than those of Port Sudan. There is no entrance to the former port at night, and, if it had been thought advisable to make such an entry feasible, the cost of lighting would have been enormous. It is estimated that to make

the north approach to Suakin practicable by night, at least eleven lights would be necessary, and even then it is doubtful whether the majority of visiting ships would risk it. On the other hand, the safety of Port Sudan, once the inside of it is gained, is attested by the fact that about 60 per cent of the vessels which call arrive and are berthed at night.

The harbour, indeed, is an ideal one for a naval base, and a whole fleet of men-of-war could be easily accommodated. It also possesses great strategic advantages, for if the Suez Canal were blocked in time of war it would be easy to send troops to India by way of Alexandria, the Nile, and Port Sudan.

A straight channel with deep water gives an easy access to the mouth of the harbour. The mouth lies at a slight angle to the general trend of the coast, so that the reefs outside form a shelter from the heavy seas brought in by southerly and easterly winds. The entrance is about five hundred yards wide, and this breadth continues for nearly a mile. Then the inlet expands into a basin on the south side, which is some nine hundred yards long by five hundred yards broad, having a minimum depth of six fathoms. Beyond this the channel runs up into the land for a distance of about two miles. There is another basin on the north side about one and a half miles up, and a third at the end of the inlet. For one mile after leaving the first basin the water has a minimum depth the whole way up of two and three-quarter fathoms. The narrowest part of the inlet is about seventy yards. The shores of coral rise to a height of from six to fourteen feet above sea-level.

The lighting arrangements at Port Sudan harbour are admirable. At a distance of some fourteen miles to the north-east of the harbour stands the Sangareb Lighthouse, giving a single flash every 5 seconds, visible 19 miles distant, while at the entrance to the harbour itself (in latitude $19^{\circ} 30' 11''$ N., long. $37^{\circ} 13' 41''$ E.) has been erected a lighthouse of iron framework, hexagonal in shape, and connected with the shore by a stone jetty. The light is a third-order dioptric, a method of illumination in which the effect is produced by a central lamp sending its rays through a combination of lenses surrounding it. The light occults

every 10 seconds, and is visible 14 miles distant. In the narrower part of the channel are two lights, one on each side. On the starboard (entering) is a fifth-order fixed dioptric green 30-candle-power light, and on the port (entering) a similar light, but red. The height of the focal plane in each case is 7.77 metres, while the height of the focal plane of the harbour entrance light above described is 19.10 metres, above mean tide-level.

The leading lights have towers constructed of iron trellis-work, square at the base and pyramidal in form. The height of the front tower is 34 metres, and that of the rear 48 metres, the distance between the two being 964 metres. Upon each tower is hoisted a pair of red lights, the lamps being of fifth-order fixed dioptric, 30 candle-power, and placed 20 feet apart. There are also a number of beacons, each 15 feet high, and made of iron, placed on prominent points of the reef immediately outside the harbour. Beacons have also been placed on the southern and eastern points of Wingate Reef, which lies four miles to the N. 70' E. from Port Sudan. An iron standard, surmounted by a cage-beacon, painted chocolate colour, stands on the eastern point, and an iron standard of a similar character and colour, but surmounted by a diamond shape, is placed on the southern point. No precautions have been omitted to make the harbour absolutely safe for vessels arriving, and wishing to enter their berths, at night.

There are five berths, each of 125 metres in length, available for shipping. They are lighted by electricity, and equipped with cranes electrically driven. Of these there are one 7-ton and four 3-ton gantry cranes. The equipment likewise includes two 5- and four 1-ton electric capstans; four electrically-driven coal transporters, one coal rehandling bridge plant, erected at the coal berths on the quays, a 60-ton floating crane for very heavy lifts, and a 15-ton steam crane for medium lifts. The depth of water at the quays is 30 feet. A well-equipped dockyard workshop is capable of undertaking general repairs, while a steam-hauling slipway, capable of taking vessels up to 500 tons displacement, is available for use.

The port of Sudan, like that of Suakin, is under the control of the Railways Administration, whose chief executive official is the Port Officer at Port Sudan. Pilotage dues, which are compulsory, compare favourably with those in force at other African ports, and special attention is paid to the observance of boat regulations relating to private boats plying for hire in the port and harbour. A tariff is published for the guidance of the public, and this is found very useful by the tourists who land at Port Sudan during the short or long "calls" at that place by steamers arriving from Europe.

The Khedivial Mail Steamship Company's s.s. *Prince Abbas*, with the mails, which had left London, *via* Brindisi, on the last day of October 1907, was the first to arrive at the new but then unfinished Port Sudan, mooring there on the evening of the following 9th of November. Thus, for the first time, Khartoum was brought into communication with London within ten days. Upon this occasion every passenger had to possess and to show a passport to an official from the Passport Office before being permitted to land, not even well-known Government officials being exempt. These arrangements, in conjunction with others equally irritating to travellers, have been accentuated since the war.

In 1904 the place now known as Port Sudan consisted of little else than the much-neglected tomb of the Sheikh Barghut, after whom the inlet upon the Red Sea littoral was named. To-day the surrounding land has been reclaimed and laid out in the form of a township, which may yet develop into an important seaport. The early work was carried out under the superintendence of Captain Kelly, R.E., on behalf of the Sudan Public Works Department.

Port Sudan town and harbour cost £866,000 to build and equip. Since the port opened, the external trade of the Sudan has doubled in value. This increase is mainly the result of new railways, but it has been assisted by the fact that the quick despatch, up-to-date apparatus, and safe entrance, both by day and night, which the port offers, have made it attractive to the leading lines of passenger and cargo steamers which call there for traffic.

In 1908, one year before the formal opening took place, the registered amount of international shipping calling at the port was 312,770 tons; in 1914, the year of the war, it reached its apex at 797,278 tons; and it fell to 429,138 tons in 1917.

The principal Companies calling at Port Sudan included the Khedivial Mail, Union-Castle, Bombay-America, British India, Clan, Bucknall, Harrison, City, Hall, Ellermann, Odessa, and the Società Nazionale dei Servizi Marittimi. Nearly all of these lines maintained a service at regular intervals.

From a climatic point of view Port Sudan enjoys certain advantages over Khartoum, but on the other hand it suffers drawbacks from which the latter is free. Any one who has resided upon the Red Sea littoral knows that the north-easterly winds which blow there are usually cool but intermittent, and that when these drop, the atmosphere becomes charged with a heavy moisture of a briny and sticky nature extremely disagreeable to human beings.

Port Sudan suffers from this affliction to a marked degree; the summer nights are usually windless; the breeze which blows almost (but not invariably) daily commences about 10 A.M., and continues until an hour or so after sundown. The nights during the long and humid summer prove extremely trying; sleep is difficult and much disturbed, while insect life is rampant.

It is true that the port and district are commendably free from mosquitoes—in this respect resembling Khartoum; but, on the other hand, it is plagued by myriads of minute flies, which greatly contribute to the physical discomfort of residents. Strangely enough, no effort has been made hitherto to overcome or in any way to mitigate this nuisance. The mosquito plague, however, has been arrested, and where the authorities succeeded in the one case there appears to be no reason why they should not prove equally fortunate in the other.

The port town is almost a new one, and its appearance is neat and clean. The absence of loose sand in some of the most frequented thoroughfares renders locomotion easy, but the distances are great. The original plan of construc-

tion seems to have been drawn upon too liberal and too optimistic a scale, space being allowed for a large expansion and for the erection of other buildings, with connecting thoroughfares, neither of which has as yet materialised—nor seems so destined for some years. The principal constructional material for official and other first-class buildings is a handsome coral rock, but rather too soft, obtained in unlimited quantities from the subsoil of the ground upon which the town is built. The effect would be cold to the eye, perhaps, in any other atmosphere than that of the sunny Sudan; as a fact these substantial and rather ornate structures, with their roofs of bright red tiles or of painted corrugated-iron sheets, stand out in bold and pleasing relief against the brilliant azure of the harbour and distant sea. The pleasing scene is set off by the more sober colouring of the range of rugged hills which encircle the port, forming as agreeable a picture as any to be found in the Sudan—a country which is in no way remarkable for scenic attractions in general.

Building-land in Port Sudan town is expected to become of greater value within the next few years, and probably this hope will be realised. The policy of the Government is to grant no freeholds. This will effectively prevent land speculation, which had already proved a calamity in Khartoum. The longest leasehold does not extend beyond ninety-nine years, and stringent regulations are introduced into all leases with regard to the character and the value of the buildings destined to be erected, and the length of time permitted to carry out the work.

By these means it is hoped to obtain uniformity in the appearance and value of the town structures; in course of time, therefore, Port Sudan should develop into a handsome and homogeneous town. Only by ruthlessly sweeping away the many ugly and untidy wooden huts or *tukhs* which were erected apparently anywhere and anyhow in the early days, can any permanent uniformity of appearance and neatness be attained.

Among the main structures are the Mudiria, a handsome two-storied building of coral rock; the hotel (formerly the

General Post Office), constructed of the same material ; the Governor's residence ; the railway station ; the port warehouses and offices ; the two clubs ; the small but neat church (built of wood and galvanised-iron sheets), and several attractive private residences (belonging to officials), some of which would grace a town of larger size.

On the other hand, the almost complete absence of gardens and the lack of natural foliage are very noticeable. It is apparently found difficult to raise even the hardiest kinds of trees or flowering plants upon the coral soil, only a few trees and shrubs of the tamarisk family thriving upon this ungenerous and arid ground.

The months of February, March, and April are perhaps the more agreeable for residence by Europeans at Port Sudan, for then the wind is stronger and the sun less powerful. Efforts are to be made to draw the attention of tourists to the fisheries of the Red Sea littoral, and particularly to those at Port Sudan. An accepted authority upon the piscatorial art—the late Mr. Aflalo—had been a frequent visitor, and he is said to have expressed his belief that “good sport may be found here.” Whether the attractions of deep-sea fishing would prove sufficient in themselves to make Port Sudan popular among visitors is perhaps doubtful ; had yachting also been possible, the two diversions combined might have proved alluring to those in search of a new and untried sporting ground. But nearly the whole of this coast is found extremely dangerous for vessels, the currents being both numerous and violent, while but little accurate charting has as yet been carried out. Even for steam craft, navigation of the coast between Port Sudan, Suakin, and Trinkitat is found perilous at most times of the year, and impossible at some. The Sudan is, indeed, by no means favourably placed in regard to its seaboard ; its coastal development as an additional commercial factor seems unlikely to occur for some time to come.

CHAPTER XXII

Native races—Ethnological groups—Sudanese Arabs—Treatment of native tribes—Different tribes in the provinces—Native customs—Lip-perforation—Self-mutilation—Strange costumes and head-dresses—Tribal face scars—Mutual flogging—Arab music—Dance and poetry—The *Book of Songs*—Arabian medicine—Native doctors—Medical assistance given to natives—Governmental and missionary hospitals.

THE Sudan was always regarded as the true home of the African negro, but according to Lepsius the Sudan was rather an intermediate or *inter-medial* domain, lying between the two Hamitic and Negro ethnical groups which respectively occupied Northern and Southern Africa from the remotest times. Certainly many of the chief races in the Sudan—Madingo, Jaloff, and Toucouleur in the West; Kanemba, Haussa, and Kanuri in the Centre; Maba in Wadai, Nuba in the Nile Valley, but least of all the Fulahs of the Chad and Niger basins—can be considered of negro descent. The argument of modern ethnologists is to the effect that the Sudan should be excluded from consideration in regard to the actual home of the negro, but others think it may be accepted as certain that the whole of Africa south of the Sahara was the original habitat of the race.

No one can look upon the Nubas of the Middle Nile, for instance, without recognising the features of the negro; it is admitted that these people are an intermediate breed between the true negro and the Egyptian Hamite; again, the Fulahs of Central and Western Sudan, although now much mixed, seem to have been originally distinct both from the negro and the Hamite; while the Fans, who have in recent times reached the west coast just above the Equator, are of a semi-negro type.

The following rough scheme of classification of the Sudan

types may be considered useful, although it does not pretend to be in any way complete.

West Sudan and Upper Nile :

Dar Banda Group.—Runga, Kredy, Ago, Silla, Bandala, Daggel, Gulla, Fana, Birrimbirri, Seli, Kutingara—inhabiting the Upper Shari, east to Dar-fertit.

Fur Group.—Fur (Forang-bele), Dudunga, Kunjara, Kera, Massabât, Tunjuer, Dago, Berti, Bego, Birqui, Berduna, Jellaba, Sungor, Mararit, Jebal, Guimir, Kabga—inhabiting Darfur and Kordofan, between Wadai and the White Nile.

Nilotic Group.—Shilluk, Nuer, Dinka, Bongo, Jur, Bari, Mittu, Rôl, Millow, Agar, Sofi, Lehesi, Azell, Ayarr, Monbuttu, Janghey, Fallaugh, Miauk, Bonjak, Jibba, Kunkung, Nikuar, Madi, Lahoré, Shuli, Berta, and Amam—inhabiting the White Nile and its tributaries, east to Kaffa and Gallaland, south to Uganda.

The whole question of the origin of the various races known collectively as “the Sudanese people” is intensely interesting, and it is a pity so little knowledge is obtainable upon the subject. Even these students of ethnology who have read the observations of such authorities as A. H. Keane, set forth in his pamphlet, *North African Ethnology*; or of Pruner Bey, author of *Mémoire sur les Nègres*; or, again, of Colonel Hamilton Smith, in his *Natural History of the Human Species*, have not found anything conclusive or convincing.

It will be all the more satisfactory, therefore, to those interested, to learn of the efforts to establish a school of applied anthropology in connection with the British Association. The importance of anthropology for administrators, merchants, missionaries, and others whose lives are spent in countries like the Sudan, has been emphasised by Sir F. Reginald Wingate (formerly Governor-General of the Sudan), who has evinced great personal sympathy with the proposal of the Anthropological Section of the British Association to found the school referred to.

En passant, attention may be directed to the reliable papers which appear in Reports of the Wellcome Tropical

Research Laboratories in connection with the Gordon Memorial College at Khartoum. Here from time to time most valuable information may be gleaned concerning tribal customs, especially in relation to medicine and morals; from this source one may gather a great deal of authentic information about the Nyam-Nyam and Jur people inhabiting the eastern Bahr-el-Ghazal.

The population of the Sudan to-day remains, as it has always been, composed of three different classes: (1) the pure Arab, (2) the Negroid, and (3) the Black.

The Arabs have seldom known manual labour. They existed long before the days of Mohammed, but anterior to the advent of that prophet the race had never been united. They wandered about the country, employing themselves in the breeding and tending of cattle, and, occasionally, in pillaging neighbouring tribes or any unfortunate travellers who came their way.

Probably the first Arabs to enter the Sudan came to escape from persecution in their own land, advancing westwards and trading peacefully on the way. Gradually they established themselves on the Blue Nile, and their numbers rose to a substantial figure. They stretched still farther westwards as far as Darfur and Wadai, joining hands with the Berbers who had advanced into the Sudan from the north. Finally, in the thirteenth century, they mingled in a similar manner with those Arabs who, on their way from Egypt, had destroyed the Christian kingdoms of Nubia and Dongola, and with their help they brought to an end the powerful empire of the Christians and Nubians, whose centre was Sobat on the Blue Nile. Some of the Arab tribes that exist in the Sudan to-day are said to be descendants of those early immigrants.

The Negroids with their dark brown skins, black, crisp hair, long heads, broad, flat noses and thick lips, are considered to be the best workers in the Sudan.

The Blacks—who have always been the slaves of both the Arabs and the Negroids—are temperamentally idle, lazy, and absolutely without ambition; notwithstanding their indolence, however, they have been made to do most

of the manual labour, such as collecting gum, rubber, senna, ivory, etc., and to cultivate the land and navigate the rivers. Battalions raised largely from deserters from the Dervishes during the "Mahdia" form the backbone of the Egyptian army.

When the Turks conquered the Sudan all these races alike became their prey, the only difference under the new régime being that the unhappy Black had to work still more strenuously to satisfy his Negroid official superior, while the Negroid had to strive harder to win the approbation of his Arab master, so that the latter could better satisfy the demands of his own lord the Turk.

While to our more civilised minds the treatment meted out to the Sudanese natives by their former Arab masters appeared to be—as, indeed, it was—horrible, one has to bear in mind the native character with which the Mahdists and their predecessors the Egyptians had to contend. The mass of the people with whom they had to deal were little better than brute beasts, eaten up with hideous superstitions and practising abominable rites; hide-bound by tradition; ignorant of all feelings of gratitude or sentiments of pity; treacherous in their dealings with one another, and acting either as blustering bullies or craven curs towards other tribes.

It is estimated that the various provinces of the Sudan embrace some two hundred different tribes. Each tribe—such, for instance, as the Nubas—may make use of as many as twenty different dialects, so that the means of communication with them and between themselves by speech becomes an extraordinary difficulty, a difficulty rendered no more solvable by the fact that many are wholly ignorant of Arabic, which many imagine to be the common language of the country. To acquire even a partial knowledge of the tribal dialects is an extremely arduous undertaking; to attain to a complete acquaintance with the numerous tribal languages would be an impossibility. Nevertheless, the majority of the Sudan officials possess, ordinarily, a workable knowledge of the various dialects, and are, at least, able to make themselves well under-

stood by, and to conduct efficient inquiries among, the people with whom their authority carries.

The examinations and tests through which officials receiving administrative appointments under the Government must pass are severe, while great care is exercised in selecting for responsible positions men with knowledge of native customs and who display conspicuous ability in acquiring the native dialects, both oral and scriptory.

Some of the native customs in the Sudan are extremely unpleasant to the average mind, especially those which call for bodily mutilation. These barbarous customs vary among the different tribes, the Nyam-Nyams and the Jurs practising the most displeasing. These people completely spoil their naturally fine teeth by sharpening and notching the central upper incisors, extracting the lower incisors, and pointing two lower canines. Some of the men extract the four lower and separate the upper central incisors, while the male Jur people often score their teeth with tribal marks, and, after extracting the four lower and the two upper central incisors, hang them on strings round their necks as ornaments.

Lip-perforation is another form of facial mutilation practised occasionally by the Nyam-Nyam tribe. Among the Jur women, however, according to the Nuba custom, this is almost universal; one observes it but rarely among the men, since they deem the practice to be effeminate. The operation of lip-perforation is performed in early childhood, one or both lips being pierced with the point of a spear, pegs being inserted, of gradually increasing size, until cylinders of wood, stone, or metal (usually the butt-ends of 12-bore shot cartridges) can be introduced. These cylinders lie flush with the outer surface of the lip, the upper and lower incisors being removed for their better reception within. A truly horrible effect is thus produced, the face assuming a beak-like and loathsome appearance.

The nose and ears are also perforated by the Jur women, whose naturally ugly forms and faces become positively repulsive. Not only do they mutilate their squat, ungainly bodies with scars, but hideously deform their lips, noses, and

ears by means of wooden discs and sticks perforating the nasal septum and the lobes of the ears. Anything more appallingly repulsive in the form of a "woman" than these Sudanese females it would be difficult to conceive.

The different face-markings employed by the Shilluks and other Sudanese tribes are not necessarily horrible, although, perhaps, painful enough to those who first endure them. After all, it is scarcely more barbarous to slash the face than it is to pierce the lobe of the ear, a practice which European women of to-day still follow, in order to crowd on to their heads additional jewelry in the form of ear-rings.

The scars affected by the "false Shilluks" are produced by the application of a strong caustic juice of the plant known as *leshe* (zandeh), which is painted on in the design required (commonly three diagonal lines across each cheek), the juice burning into the skin, removing much of the pigment, and leaving light-coloured markings very difficult to distinguish upon casual inspection from real scars.

Tribal face scars are an almost universal form of facial mutilation, and serve to distinguish tribes, sub-tribes, and families, the practice being observed among many of the Arab races of the Sudan and of the negroid Sudanese.

The men and women of the Nyam-Nyam tribe also scar their bodies extensively, chiefly about the abdomen, back, and breasts, the scars being arranged generally in symmetrical and regular stripes, usually radiating round the umbilicus and nipples. The operation is commenced before puberty, and completed bit by bit (sometimes left incomplete), though it may be undertaken even in adult life. The design is marked out in red clay or, perhaps, left to the eye of the artist. Small folds of skin are then pinched up and rapidly incised, a stipple effect being obtained by the number of small keloids resulting. Undoubtedly intense pain is caused, but the patients maintain an outwardly stolid demeanour, uttering no sound or complaint. After the operation is completed, wood ash and palm oil are rubbed into the bleeding flesh, both to increase the width and depth of the scar and to act as an emollient.

The "ordeal" of mutual flogging, which so many of the

natives of the Sudan practise, for the mere vanity of appearing " brave " and " stoical " before their womenkind, seems to be similar to a former custom in Rome, about 600 B.C., whereby boys proceeded through the streets and at the Lupercalia, flogging themselves and one another. The Sudanese women, however, do not follow the habit of the Roman matrons who, upon those occasions, often thrust themselves between the self-scourgers, seeking for the privilege of receiving stray blows, believing that these conferred fruitfulness.

The Arab race gave much attention to poetry, dance, and music, and the Sudanese seem to have inherited a great share of all three arts, if one can judge of these people by what one hears and sees in their daily lives. It is strange, indeed, that anything so gentle as the love of music or of poetry should enter into the rugged breasts of the warlike and savage tribes to be found to-day ; but so it is, and those who have studied them closely and know them most intimately aver that there exists a distinct vein of poetry, coupled with much real talent as musicians, among them. According to the word of Ibn Khaldun, the pre-Islamic Arabs were acquainted with no music save the cries for urging on their camels, and it is well known that singers were usually contemptuously addressed as " camel-drivers." When Persia fell, however, there came into the hands of the victorious Arabs, as we learn from Mr. Henry Baerlein, the author of *The Singing Caravan*, all the science of Persian music, and notwithstanding that Mohammed disapproved of it and forbade its performance, the prohibition seems to have found no observance.

We know that music was a favourite and honoured pursuit among the Arabs, who, with comparatively rough instruments—the rudiments of the flute, harp, tabor, and guitar, rather than the instruments themselves—and with a scale scientifically elaborated but entirely differing from our own, produced results which some musicians declare were the outcome of " real merit." Anyhow, the Arabs can point to the famous and voluminous *Book of Songs*, containing over a hundred different airs, declared by connois-

seurs to include numerous masterpieces of composition. It is on record that the Caliph Al-Wathik Billah, who flourished A.D. 842, paid the composer of one of these songs £2300 in its Arabian equivalent. But then Al-Wathik himself was a connoisseur of Baghdad.

While there exist some authorities who deny the Arab claim to musical ability, there are few who would contest their pretensions in the direction of medicine; for many centuries their proficiency in this respect has been recognised. Mohammed himself is known to have dabbled in medicine, but he appears to have been rather less of a success as a physician than as a preacher. Regular schools of therapeutics were maintained at Cairo, Damascus, and Baghdad, and flourished under the Caliphs. When all Europe was in darkness the Moorish Arabs at Cordova kept the lamp of science burning.

The Sudanese, however, trouble themselves very little about medical matters, as a general rule, leaving their ailments either to their witch-doctors, or, when obtainable, to the missionaries, who find them very appreciative and plucky patients. Although at first it was found difficult to induce sick and wounded people to come to hospital, on account of their not unnatural distrust of all white men, they need but little persuasion nowadays to bring them to the doors of the dispensary. The records published elsewhere in this volume of the annual attendances at the Government and missionary hospitals show conclusively that much beneficial attention is paid to the natives, and in the great majority of cases without any payment being demanded. There is abundant reason to believe that the recipients of this assistance are by no means ungrateful, although they are seldom demonstrative in displaying their feelings.

CHAPTER XXIII

Slavery in the Sudan—Conditions in 1867—Those in 1882—Abolition of slave-trade by the British Administration—Slavery Repression Department—Kidnapping and slave-dealing on the frontiers—Darfur trouble—Connivance of Abyssinians—Labour—Supplies at Khartoum and in Provinces—Convict labour—Domestic servants—Registered labour—Dinkas and Arabs.

IN Africa, as in all other portions of the globe, slavery was always regarded as a feature of the early civilisations. Since the days of the Jewish captivity in Babylonia, men have enslaved one another, and have even sold themselves—members of the Hebrew race thus settled their own condition of poverty. In the Sudan the long-established custom of buying and selling of slaves was found to be one of the most difficult questions with which to deal when the British occupation was first entered upon, and it needed all the tact and all the firmness of which the Administration was fortunately possessed to settle the matter without exciting the people to active revolt.

Sir Samuel Baker estimated at 15,000 the number of men actually employed in the slave traffic in 1867. At the time of the Mahdists' final overthrow (1898-99) the number could hardly have been much less. For long years afterwards the Anglo-Egyptian Government had trouble in consequence of its anti-slavery operations. Writing upon the state of things in the Western Sudan as late as 1906, Major Ravenscroft declared: "Arabs still steal and buy slaves from the Nubas; the Nubas sell their own people who are unprotected (such as orphans, etc.), and sometimes those captured in fights with other hill tribes." When one considers how universal was the employment of slaves in the Sudan but a few years before, the improvement which

has since come about under the present Administration appears remarkable.

The Government maintains a special Department (under that of the Civil Secretary) known as Repression of Slave-trade ("Horrieh"), which has Inspectors in various parts of the country.

It is not difficult to understand why the former rulers of the Sudan looked upon slavery as perfectly permissible, and even exemplary. Voltaire tells us that slavery is as ancient as war, and war as human nature,—a philosophy which it is impossible to deny. It may be held by some that a modified form of slavery in certain countries is not altogether an undesirable thing, but this does not apply to the kind of brutal tyranny which prevailed in the days of the Turks and their successors the Mahdists—"that execrable sum of all villainies commonly called the slave-trade."

"Indented servants," whose status and well-being are not very different from those which were enjoyed by the negroes among the Virginian planters during the eighteenth century, are found in the Sudan to-day, and on the whole the people—both the employers and the employed—live happily together under the system. Entirely different, indeed, is the position filled by the so-called "slaves" under the present régime from that experienced under the Arabs, who, from time immemorial, have proved themselves inveterate slave-holders. No Sudanese need remain a slave a day longer than he or she wishes, and in becoming one no social degradation whatever is involved. It is, then, this modified and humane system of domestic slavery—or service—which, within strict limits, is countenanced and controlled by the Administration; and on the whole owners treat their slaves very well. Should they at any time ill-treat them they stand the risk of losing their services, and every black domestic knows the state of the law; should he or she have any grievance against his or her master there is no difficulty in bringing the complaint to the notice of the nearest authority.

As to any regular conduct of a trade in slaves, this is now practically impossible in the civilised parts of the Sudan,

unless it can be conducted with the utmost secrecy. The vigilance that is maintained, however, renders the practice both dangerous and difficult, and there seems no great disposition to indulge in it.

The most flagrant cases, however, formerly occurred with irritating frequency upon the Darfur border, while the centre of the whole disturbing influence still appears to lie upon the Abyssinian frontier, from the point where the River Atbara enters the Amhara district to the valleys where the Blue Nile and other southern rivers cross the frontier. Having no effective central control applied to them, the border tribes of Abyssinia have long taken to organised brigandage. These tribesmen cross into this portion of the Sudan with impunity in search of loot and slaves, and sharp skirmishes frequently occur with the native troops. The latter manage to keep their districts fairly clear, but not without the loss now and again of a party; and from time to time a British officer serving his period of two years away from all the paths of civilisation falls a victim to duty. There are many Sudanese subjects still held in slavery in Abyssinia, far beyond the possibility of rescue, and the raids into Anglo-Egyptian territory from time to time still serve to secure for the tribesmen many fresh batches of victims. A large tract on the Abyssinian border has been practically depopulated in consequence, and the raiders are now compelled to come farther into the Anglo-Egyptian Sudan.

At the beginning of the Anglo-Egyptian Administration the Sudan suffered from lack of unskilled labour, and while the position to-day is less acute than it was, say, ten years ago, it is still not altogether satisfactory, and demands continual attention upon the part of the authorities.

Writing in 1906 of the situation in this respect, the Governor-General said: "The supply of skilled labour is even a greater difficulty. The efforts to overcome the deficiency by establishing training-schools for boys, equipped with instructional workshops, have succeeded to a small extent in relieving the situation, but the continually in-

creasing requirements of a growing country render these attempts at solution almost insignificant."

In Khartoum there is usually a shortage of such labour, notwithstanding the steady advance of wages that has taken place. A Labour Bureau exists, and is found of some benefit to the employers who use it, but from the commencement of its work it never has been—and probably it never will be—able to control the market price of labour. In former days this was due to the large number of Government contracts undertaken, while to-day it may be attributed to the steady and persistent draining of the capital of its unskilled workers.

For all large undertakings, such as the construction work on the new Blue Nile dam at Sennar, it has been found necessary to seek beyond the borders of the Sudan for the required unskilled labour, and this has been partially found in the case referred to by applying to the gaols in Egypt. In December 1913, 1580 convicts from the Tura and Abu Zibil penitentiaries (in Egypt) were brought to the Sudan for employment upon the Gezira irrigation works at Sennar. Although at first rather troublesome, the greater part of the men soon became reconciled to, and even appeared to enjoy, their new work, consisting mainly of digging and clearing away so much earth per diem upon the irrigation canal works.

As a recruiting agency for labourers the Central Labour Bureau at Khartoum has been but little used during the past few years. This is deemed by the authorities to be a satisfactory sign, in view of the fact that any demand for the Bureau's assistance only arises when the restriction of the labour market renders inoperative the normal methods of the supply.

Where the Bureau has proved itself particularly useful has been in the provision of domestic servants for the officials and others, and the equipment of several expeditionary parties of hunters and tourists. Every effort is made to retain only the services of men with good character, and gained from personal experience. I am bound to admit that the Bureau officials put themselves to very considerable

trouble in making their inquiries, and show much zeal and intelligence in dealing with the very heterogeneous and often questionable individuals who offer themselves for registration upon the lists kept.

Domestic servants receive proportionately higher wages than Europeans earn at home; the fact that the former "feed themselves" counts for little, since when living in the houses of their employers Sudanese servants freely help themselves to their master's provisions—or to such as the Mohammedan faith does not forbid them to consume.

Both employers and employed make good use of the register of domestic servants maintained by the Labour Bureau, but the market is entirely disorganised by the manner in which the average tourist—contrary to advice—offers unnecessarily high wages to the most indifferent cook or waiter merely because the latter may have acquired a knowledge of the English language and possibly have had some experience of up-country travel.

The general shortage of local labour—except during the winter months—suggests the importation from outside the country; but while such a proposition appears feasible, and even attractive, there are grave practical difficulties in the way. Up to the present a few labourers have been obtained from time to time from Upper Egypt upon short contracts with the Railway Department at Atbara, while a large percentage of the porters employed at Port Sudan are Arabs from the Yemen district. Although these men are found excellent manual labourers, and, on the whole, well-behaved and tractable, they cannot be induced to remain permanently in the country.

No doubt as the population increases—and it is increasing very satisfactorily—the problem of labour insufficiency will automatically adjust itself; in the meantime the organisation by the Central Labour Bureau is effecting much useful improvement, while, now that its *raison d'être* has been established beyond question, the services provided should be more readily taken advantage of.

Outside the capital ordinary labour is found with less difficulty. In the Bahr-el-Ghazal, for example, it is fairly

plentiful for most purposes, although for such an undertaking as that carried out by the Rubber Company the supply has always been and still is insufficient. An all-round increase of wages has to some extent solved the problem, but recruiting for labour from adjoining provinces has been unsuccessful. In the province of Berber the supply is found moderately good. In the Blue Nile Province the position is normal; in Kassala, pending the commencement of the irrigation and railway works to be undertaken by the Government, there is no pronounced demand for labour. The people, being generally fairly well off as agriculturists, are not, as a rule, anxious to sell their services.

In the Berber Province wages have advanced as in other parts of the country. The Berberines, from among whom many of the domestic servants employed throughout the Sudan are recruited, are considered by those who have lived among them, as for instance Major Sir Henry M. Hill, Governor of the Berber Province in 1906, to "possess a high code of honour among themselves, a code which would appear strange and even incomprehensible to Western ideas."

In the Kordofan district—an immensely wide one, be it said—the demand for labour has increased since the arrival of the railway at El Obeid. This forms a great gum centre, and much of the local demand for labour arises for men and women to handle that commodity. So great is the demand that for all other kinds of work, such as the building and other trades offer, assistance has often to be imported from Khartoum, itself by no means too well supplied.

The southernmost province of Mongalla, on the contrary, has more labour material than it can make use of. Great numbers of Dinkas and other natives from the Bor district, having learned to trust the white man and to value the money which provides luxuries entirely unknown to them until lately, now come in freely to offer their services. But only a small proportion among them are found adaptable; they seldom remain at work for a longer period than three months at a time, being replaced by other batches. Some-

times the same men after an interval of a year will present themselves for re-employment.

The Dinkas are found useful as herdsmen, gardeners, and labourers by the Public Works Department. The rate of pay earned is small, averaging 2 piastres (5d.) per diem; of this 1½ piastres is received in cash and the balance in kind, that is to say, the odd half-piastre represents 2 rottls¹ of dura, the grain of the country, which forms the staple fare. Food generally being cheap in this province, the natives manage to save more than one-half of their daily earnings, which in some cases—such for instance as in that of road-making—amounts to something less than the 2 piastres mentioned.

It is only within recent times that the Nuba Mountains Province became possessed of a separate government, having up till 1912 been part of the province of Kordofan. It is, perhaps, one of the best supplied with unskilled labour, the population, Nubas and half-breed Arabs, being a comparatively plentiful and industrious people. That is to say, they are found quite ready to work for pay, the Nubas especially putting in many hours a day at any kind of agricultural labour, and also making good road workmen. Their average pay amounts to 2 piastres per diem. There is undoubtedly plenty of labour available, but neither Nuba nor half-breed Arab will work without pressure—the latter is practically worthless anyhow, the former under proper supervision may become useful.

The Red Sea Province, wherein are located both the well-populated cotton-growing district of Tokar and Port Sudan, the most important harbour in the country, is for the greater part of the year fairly well provided with labour, but during the busy cotton season, that is to say, after the September sowing is finished and the floods have subsided, a sudden and widespread demand for labour is met with—a demand which it is found very difficult to satisfy. Local assistance—required to clean the land of the luxuriant crop of grass and weeds that springs up—is quite inadequate, and importations from the Khartoum Labour Bureau become

¹ 1 rttl=·99 lb.

necessary. The rate of wages offered upon this occasion is extremely high, amounting to as much as 10 to 14 piastres (say, 2s. to 2s. 9d.) daily. Men, women, and children all join in. The average labourer can pick from 40 to 50 rottls of cotton per diem; with the aid of his wife and children his earnings may therefore well average from 10 to 15 piastres (2s. to 3s.). The local labourers are found to work the best, the imported hands for the most part proving worthless, and only being employed as *un dernier ressort*.

To the visitor who knew but little of the Sudan, the province of Sennar might well appear to possess one of the most industrious populations in the whole country. If in 1913, or the year before, he had visited the research camp conducted by Mr. Henry S. Wellcome at Gebel Moya, for example, he would have seen there some 3000 Sudanese men and boys and 100 members of the European, Egyptian, etc., administrative and technical staff busily at work for six months of the year, while 26 miles away, on the Blue Nile, he would have encountered the 1080 convicts imported from Egypt, carrying out vast earthworks in connection with the new irrigation scheme of the Government. Owing to the general disturbance occasioned by the European War in 1914, the two once-busy encampments became practically deserted, destined, however, to resume their full activity when times proved more propitious.

The labour obtainable locally in Sennar counts for very little. Wages, however good, do not attract it, for the natives are mostly herders or cultivators, making just sufficient to supply their immediate bodily wants; anything more than this they do not ask.

The Upper Nile Province for some years proved a poor recruiting-ground for labour, owing to the fluctuation in the rate of wages. This difficulty, however, has been partially overcome, and a recognised scale has now been introduced. But the supply of labour has at no time proved excessive, and although the Suddite Company's factories have been closed down for want of funds, the demand has become in excess of the supply. The tribal

natives available offer by no means the best or the most reliable class of labour, and in all probability recruits will be drawn from Khartoum and other far-off provinces.

In the White Nile Province failure of the crops, and the consequent high price of food, have compelled the natives to work when otherwise they would probably be ill-disposed to do so. The quality of labour offered is poor. Supply is found at most seasons of the year to be fully equal to local requirements.

CHAPTER XXIV

Private enterprise in the Sudan—Mr. H. S. Wellcome's archaeological excavation camps—Explorations and Discoveries—Early difficulties and perils—Turbulent native outlaws—Local opposition—Indolence of the natives—Enticements to industry and thrift—Winning confidence of the natives—Welfare work and reforms—Drunkenness attacked—Curse of *merissa*—Reducing crime—Evolving order out of chaos—Discipline, drilling, and training—Creating a new industrial element—Famines—Overcoming scarcity of water and food—Workshops and Industrial Schools established—Lord Kitchener's appreciation—Moslem approval and co-operation—Sobriety triumphant—Successful savings-bank system.

DURING a period of ten years there has been proceeding very quietly in one of the desert places of the Sudan as admirable and as humanising a piece of work as any that has been chronicled in the world's annals—a work estimable alike from a social and a scientific point of view.

If little or nothing has hitherto been gleaned in the way of public information concerning the immense undertaking launched and personally conducted by Mr. Henry S. Wellcome since 1910, the reason must be sought, firstly, in the modesty of the man himself, and secondly, in his fixed determination to make no public pronouncement, however guarded or however non-committal, until such time as he felt absolutely sure of his ground, and no less confident that his data were sufficiently complete to justify definite conclusions on the problems opened up by his archaeological researches in this remote region.

That any sidelights can at length be thrown upon the work proceeding at Gebel Moya must be attributed more to the persistency and the pertinacity of the present chronicler than to any great conversion of Mr. Wellcome himself from his already expressed conviction that his research work—vast and comprehensive as it has been—is not yet sufficiently ripe to justify publicity.

With the expression of this opinion I have ventured to disagree ; and while I fear that I have failed to induce Mr. Wellcome to depart much from his original conclusions, I have, to some extent, shaken the battlements of his reserve, inasmuch as he consented for once to suspend in my favour his rule against admitting to the charmed and charming circles of his surroundings an author armed with the recording pencil, and to permit him to say something of the welfare work proceeding amongst the natives of the Sudan.

The several days which, through the influence of a personal introduction of the Governor-General, I was privileged to pass with Mr. Wellcome at Gebel Moya in the early days of the year 1914 entirely convinced me that I had been correct in believing, from information already obtained through responsible sources, that he came well within the category of those who "do great deeds." I hope to prove at least that he has ranked himself as a philosopher as well as a benefactor.

In the face of the worst kind of discouragement, disappointment, and disillusionment he has persisted in carrying on an undertaking which will materially enrich the spheres of archaeological and anthropological science, while it will serve to solve one of the most difficult and pressing problems of the day—how best to civilise and, at the same time, to elicit the more noble of the attributes of native races.

From early youth Mr. Wellcome, in addition to his other activities, has been a keen student of prehistoric archaeology, and in the course of extensive travels in various parts of the world he has been an alert seeker after relics of primitive man.

During his first expedition to the Sudan, soon after Lord Kitchener's reconquest, he made some discoveries of neolithic remains of special interest, but was unable to resume these researches until 1910, when he explored extensive tracts of country in the Sudan and discovered several very ancient sites. Mr. Wellcome was specially impressed by remains which he then found in a high range of wild rocky hills known as Gebel Moya, Sennar Province, to the north-west of Abyssinia and lying between the Blue and White

Niles. The local community, notoriously the most lawless and turbulent in the whole Sudan, consisted mainly of criminals and descendants of criminals. Men, women, and children were alike filthy, indolent, drunken, and depraved, clothed in mere tatters which were black with grime and grease.

Mr. Wellcome's explorations, and particularly his inquiries about cave dwellings, excited the suspicions of the chief robbers, who feared the discovery of their crimes and secret haunts, and they tried to mislead him by denying the existence of any caves or ancient remains. He persisted, however, and discovered numerous caves, also extensive remains of a very ancient industrial settlement in a large basin high up in the Gebel surrounded by great natural walls like a fortress. The rock caves in the Gebel had not only served as habitations in prehistoric times, but also from time immemorial had been places of concealment for outlaws and their booty.

This site revealed evidences of such archæological importance that Mr. Wellcome immediately obtained a Government licence to excavate. To assist in his explorations, he had brought with him half a dozen native sailors from his dahabeah, on which he had been cruising up the Nile. Having no excavating equipment, he was at first obliged to extemporise implements, hewing them out of wood with native hatchets. Workmen were needed for the excavations, and the Omda (the native head chief of the district) sweetly promised to supply hundreds, but behind the explorer's back tried to thwart him at every turn and secretly threatened any who dared to enter his service. With the view to stopping the excavations the Omda even attempted to cut off food-supplies. No one in this squalid little settlement really desired to work—all were habitually lazy and indolent. The villagers had never been known to undertake manual labour of any kind beyond the cultivation of an infinitesimally small portion of their land, yielding little more than sufficient for their own wants, and "money for labour" appeared to possess absolutely no inducement. They would say, "We are not cattle, why should we work?"

The wages promised were more than double the normal local rate, and in addition to wages liberal prizes were offered. The idea of prizes proved attractive and excited the native gambling spirit. After much delay and difficulty, a dozen venturesome men and boys risked the perils of the Omda's displeasure and were enticed to work under guarantee of protection. These were carefully trained to qualify them to become teachers of others. The payment of wages and prizes was made as publicly and conspicuously as possible; the clink and glitter of coins soon roused the greed and jealousy of the unemployed, with the result that the numbers steadily increased, until towards the end of the first season more than five hundred were engaged on the works.

Mr. Wellcome's extensive experience with native races, and his extraordinary tact and resourcefulness, proved useful to him in meeting the wily intrigues and innumerable obstacles encountered at every step. To these primitive and suspicious natives it seemed improbable that this white *deus ex machina* could continue long to part with so much money; he must, they believed, inevitably disappear from among them as speedily and as mysteriously as he had appeared.

At least they demanded from him a daily settlement of their earnings, not being willing to grant even one week's credit to their employer, of whom, indeed, they continued for a time to entertain the most pronounced and ineradicable suspicions—suspicions fostered by the Omda, who also appealed to their superstitions and made all manner of evil prophecies.

Mr. Wellcome aimed from the first and unceasingly to win and hold the confidence and trust of these wayward children of the wilds, and to convince them that he sought to improve their condition and not to make gain out of them. All manner of prejudices were strongly against him, however, and his every word and act liable to be misinterpreted. Many of the older workmen were fanatical dervishes who had been fierce warriors of the Mahdi and Khalifa, and were not yet quite reconciled to the new régime. Some came from disloyal villages which recently had caused

trouble to the Government. Most of the natives were Moslems, extremely fanatical, but grossly ignorant of the true teachings of Mohammed. They flagrantly violated many of the sacred precepts of their religion; consequently orthodox and ethical Mohammedans called the people of Gebel Moya "Devil worshippers." Any attempt to proselytise and convert these misguided lawless beings to Christianity would have resulted in a furious and disastrous outbreak, for all would have united to drive out the "false teacher."

Knowing well the teachings of Mohammed, Mr. Wellcome referred offenders to the Koran, and held them to the strict observance of their own religion, and to the laws of the prophets, reminding them that a *true* Moslem *must be* a *good* man. At the same time he taught them the benefits of Christian civilisation, and pointed out that the God of Moslems and the God of Christians were one and the same God, likewise that most of the Christian prophets were identically the same as the prophets of the Moslems. He constantly taught them, too, that British rule meant religious liberty and clean justice; that it was their duty faithfully to worship Allah and be loyal to the Government.

Problems innumerable crowded every day. Men and boys were equally incorrigible, and attempted every trick in the calendar to rob, cheat, and deceive: there was no petty little meanness or method for shirking work that they did not practise. Truth was not in them. They had no sense of honour, probity, or loyalty, while their natural ferocity and savage disposition found full vent amongst themselves on the slightest occasion. Crime was prevalent; inter-tribal, inter-village, and inter-family feuds were ruthlessly waged, some of these feuds being survivals of many generations past. Sometimes the most trivial causes would precipitate sudden outbreaks. A hasty word, a curse, would be followed by a blow from a club, a thrust of knife or spear; then frenzy reigned. Violent encounters took place, not only daily, but hourly; several times pitched battles occurred involving nearly the whole community. Every man and boy went armed with club, knife, or spear. Drunkenness

in almost every instance was the real cause of the fighting and crime.

In the midst of all this disconcerting turmoil and uproar Mr. Wellcome moved, if not entirely unaffected, at least undismayed and wholly undeterred from his task of evolving order out of chaos. Unceasing vigilance, self-control, and swift fearless action invariably gained the day. He never used or displayed weapons; and it was only in very rare cases, and then solely in self-defence, when personally attacked, that he ever exercised counter-violence. In all such desperate cases Mr. Wellcome snatched success by some stratagem and dexterous surprise, and landed his assailant in the dust before he could get in a thrust. Failure would have meant a tragedy. Various plots and attempts to "eat up" the camp were made, but they were anticipated and nipped in the bud.

It was but a short time before this that Moncrieff had been murdered by very treacherous natives in this region, and prominent Government officials had warned Mr. Wellcome of the risks he was incurring.

Undoubtedly this plucky Englishman, used though he had been to the control of men of all sorts and conditions, carried his life in his hands when he undertook to deal, almost singly, with these desperate characters. He did not falter, but fearlessly and unflinchingly defied and gained ascendancy over them; then he gradually subdued their ferocity and won their respect and confidence. Soon his position became sufficiently strong to enable him successfully to prohibit the carrying of weapons. This shows conclusively that Mr. Wellcome understood the serious nature of his undertaking and was fully qualified for the task.

Indomitable human will and a keen knowledge of human nature triumphed. In the course of time the "hopelessly intractable" became gradually amenable; the apparently irreconcilable evinced wholly unexpected traits of reasonableness and good nature.

Mr. Wellcome devoted a great deal of his time to welfare work amongst his workmen, and with untiring sympathetic patience he sought to influence them to exercise self-control,

to live clean lives, and furthermore, he endeavoured to inspire them with a *desire* to be respected by their fellow-men. Constantly he pointed out the curse of drink, the misery caused by crime as terribly exemplified in their midst, appealed to the sense of shame, and urged them to become *real* men instead of degraded beasts. Naturally, with such material upon which to work, beneficial influences were slow to manifest themselves and proved only partial in their success.

The first discouraging effect of distributing so much unaccustomed money amongst these natives was the inducement to still more drunkenness. The piastres burned the hands of boys and men alike. Their nights were spent in bestial orgies, and before the coming dawn each day's pay had been "blown" on *merissa* and prostitutes. Men, women, and children lived absolutely "*merissa* lives," and were sustained by this debasing intoxicating stimulant, rarely taking natural solid food. Consequently they were unhealthy, blear-eyed, and emaciated. Most of these as yet unreclaimed creatures remained under the influence of drink night and day for weeks together, some completely stupefied, others partly inflamed, while many were extremely quarrelsome and dangerous.

For some little time all efforts to persuade the workmen to save any part of their earnings were unavailing, even after Mr. Wellcome had gained their assent to weekly instead of daily payments. The weekly payments did, however, materially reduce drunkenness, though many could not resist the temptation to have a big "fling" with the week's wage, resulting in a debauch lasting several days. Fortnightly payments were finally adopted and proved more satisfactory. The very largeness of the amount of two weeks' wages impressed the minds of these poverty-stricken wretches, who had never before possessed so much money; then they began to think and to dream of riches; the idea of the possibilities and responsibilities of wealth dawned upon them.

At last many began to listen to Mr. Wellcome's advice to save and to invest a good share of their earnings. Others, however, for a time still yielded to the lures of Satan, and

gave way to even greater excesses, returning to camp after a big bout of furious drinking in ugly fighting mood—for “much *merissa* maketh men mad for battle.”

Time, patience, and perseverance have wrought wondrous changes. Men who were the worst criminals and worst drunkards are to-day some of the most efficient and reliable workers and hold responsible positions; they have become total abstainers, exercising self-restraint, and using their influence on the side of peace and good order. But progress has been slow, and many backsliders have had to be reclaimed over and over again.

Although intoxicating liquors were strictly prohibited by Mohammed, *merissa*-drinking had become such a deep-seated habit amongst these depraved Moslems that it required a desperate struggle for them to give it up. When urged to become abstainers, they would say, “*Merissa* is like a wife to me: it is my greatest joy and consolation. No! I will *never* give it up.” At first no moral plea would influence them. To move them it was necessary to rouse first the materialistic spirit by persistently demonstrating that the abstainers became the best men, earned the most money, won all the best prizes, and would soon be able to buy the most beautiful wives, while the drunkards were but stupid asses, earned smaller wages, and only won a few of the lowest prizes.

Jealousy and envy of others and greed for self, helped materially towards attainment of the desired moral end. At first it had been extremely difficult to induce any amongst these people to moderate their drinking, or to swear off even for a few days, but all who did so soon became shining examples before their comrades. Gradually the numbers of abstainers increased, and many consented to swear off for a month, then to the end of the season, and some for life. The best holy men in the region appreciated Mr. Wellcome's efforts, and gladly assisted him by swearing converts on the sacred Koran with the most solemn oath. Progress continued steadily and constantly, increasing numbers becoming life abstainers. As drunkenness was lessened, so in proportion crimes and disorders were reduced.

By the end of the first season a spirit of industry, thrift, and sobriety prevailed, while a large number had considerable savings which they were induced to invest mainly in cultivation of land and in animals for breeding.

When Mr. Wellcome returned to Gebel Moya for his second season he was informed that the herds and flocks of the district had been doubled as a result of the savings of the first season. He thus found that his efforts had not been wasted, and that progress had continued in his absence. The modified habits of life were evidenced by marked improvement in conduct, and it was some weeks after his return to the Sudan before the first case of drunkenness occurred. Not only the villagers, but hundreds of natives from distant parts of the Sudan, who had heard of the benefactor, eagerly awaited his return.

A savings-bank plan had been worked out by Mr. Wellcome during his absence, specially adapted to the needs of these natives, and designed to assist in teaching them the art of saving money. Having devoted several weeks to systematic demonstrations of his plan, and to making full explanations to all classes, Mr. Wellcome started the savings bank early in the second season; each workman then had his book showing his wages, drawings, and savings. This savings-bank system has proved a remarkable success, so much so, indeed, that it has become one of the greatest attractions of the work, and draws natives of many tribes, Moslem and pagan, from distant parts of the Sudan to seek employment at Gebel Moya. Fathers walk hundreds of miles across the desert to bring their young sons and place them in Mr. Wellcome's charge, begging him to teach them how to save their money, to lead clean lives, and to become clever "like Englishmen." No youth is engaged except with the approval of his father, or some other person responsible for him. The steadily increasing numbers of natives employed by Mr. Wellcome at Gebel Moya and his other archaeological camps in the vicinity during the first four seasons are thus indicated—

Seasons . . .	First	Second	Third	Fourth
Numbers more than	500	700	1200	3000

During the last three seasons, in addition to those actually engaged, many thousands of others applied for work, but not being required they were turned away.

More than 90 per cent of those employed in the third and fourth years were pledged on the Koran to become total abstainers for life, and, so far as is known, not more than 5 per cent of these have broken the pledge.

The young men of to-day who came to Mr. Wellcome as mere lads in the first years of his excavations are now the most keen, efficient, and reliable of all engaged in the work, and they, together with the well-trained older men of long service, exercise a highly beneficial influence upon the many new-comers engaged. On the other hand, in some cases the influence is reversed, for some newly engaged crafty men upset and lead astray those who have been long in service, and who are well on the way "to righteousness."

Before engagement, every candidate is examined by the camp medical officer, and he is only accepted if passed as fit for work. Notwithstanding these restrictions, the great majority of new men accepted are soft, weak, unaccustomed to any kind of hard, continuous manual labour, and quite unable to use effectively even a pickaxe or a spade. Each man is appointed to perform such duties as his capacity warrants; he is first taught methods of work, and gradually thereafter advanced to tasks which will best develop his physical powers. The improvement in the physique, capacity, and general health of these natives after a few weeks' training is very striking. Some frail creatures become in time so robust and muscular as to rival the strongest of their comrades.

From the beginning of this remarkable undertaking Mr. Wellcome realised that no man or boy could be expected to perform strenuous physical labour unless he was sustained by proper and sufficient nutritious food. Gradually he eliminated *merissa* as a staple of diet, and soon proved to the people the greater efficiency, power of endurance, and earning capacity of those who gave up *merissa* and lived on good solid food properly prepared. During the first season his efforts were facilitated by the cheapness of *dura*,

the staple native corn, for the copious summer rains that year had ensured abundant crops, and 25 to 30 piastres would buy an ardeb of 480 pounds. Unfortunately, during the second, third, and fourth years, severe droughts caused food and water famines. *Dura* then became scarce, dear, and difficult to obtain. Speculators had got hold of the crops from the growers at low prices; they then combined and forced up the prices until they reached as high as 200 and even 300 piastres per ardeb. Poor natives could not afford to eat *dura* at such extravagant cost. The pangs of hunger caused despair and desperation amongst the workmen at Gebel Moya. Finally a grave crisis was reached. Men could not work on empty bellies, and continuance of the excavations was jeopardised. Mr. Wellcome met the situation by purchasing quantities of *dura* at the high rates prevailing, even importing cargoes from India, and supplying the food to his workmen and their families at very moderate prices, thus making heavy monetary sacrifices for their welfare.

The constantly recurring water famines likewise brought trying ordeals. When Mr. Wellcome first came to Gebel Moya, several shallow wells yielding very limited quantities of brackish water were the only sources of supply. To meet the requirements of the large and increasing human force employed, it became necessary to supplement these sources by obtaining large quantities of water from the Blue Nile, situated 35 kilometres distant. Furthermore, Mr. Wellcome deepened the old wells and dug many new ones, a very difficult undertaking in these rocky *gebels*. During the hottest months, when the temperature ranges from 100° to 120° F. in the *shade*, toilers in the field exposed to the broiling rays of a tropical sun must needs be liberally supplied with water to quench a raging thirst. At such times droughts and water famines cause much distress. Then the wells must be dug deeper and ever deeper, and more water must be brought from the Nile, or the people would fly to the river. Everything must give way to the emergencies of the water-supply. On occasions of great stress Mr. Wellcome had sometimes found it necessary to

employ several hundred men on well-digging alone. Failure of the water-supply for such a large number of workmen would have created a very desperate situation. Fortunately Mr. Wellcome's forethought, perfect organisation, and prompt strenuous action had always averted disaster, though he must have passed through some periods of great anxiety.

In 1912 Mr. Wellcome, at great expense, took out to the Sudan a complete equipment of the best up-to-date power well-boring plant for the purpose of sinking artesian wells, hoping by this means to secure, not only adequate supplies for his own camp requirements, but also a permanent source of supply for the natives in this district.

An expert engineer is now in charge of this plant, and the operations are still continuing, though slowly, for he is boring through a solid bed of the hardest granite at the rate of less than one foot per day. The boring has already reached a depth of more than 1160 feet. Success in this undertaking would bring a great boon to the people.

In the course of the development of his excavations, Mr. Wellcome has established fully equipped engineers', blacksmiths', and carpenters' workshops, where he carries out extensive construction and repair work. These workshops are under the direction of European experts, who not only perform their regular duties, but also act as instructors to men and boys who are being trained in the various crafts.

These workshops are veritable industrial schools. In like manner, men and boys are trained in all other departments of the extensive archaeological excavation works. More than 90 per cent of the natives employed are raw and untrained when they begin service, but at the end of the season they draw substantial sums of money saved from their earnings, and leave well-disciplined "trained workmen," with improved habits and new ambitions, qualified to earn fair wages. These newly trained Sudanese are now generally becoming keen to add to their wealth by industry and profitable investments of their savings. Thus Mr. Wellcome is creating an entirely new industrial element out of crude, waste native material, and the influence of his work

is being widely felt. This new industrial element is much needed for the future development of the Sudan. All men and boys are drilled and required to go through physical exercises every day. This is found to promote discipline, prompt obedience, and good deportment.

The afternoon of every Friday (the Moslem Sabbath) is devoted to amusements. English field sports have been introduced and are taken up with zest by the natives, many of whom responded well to the training and have become proficient. These sports create keen rivalry between the various competing sections, and arouse much enthusiasm amongst all the workmen. Those who excel in sports are generally found to be the most efficient in their work. It has been the aim throughout to supply the men with healthy and attractive pastimes to replace the degrading customs which they have been induced to abandon.

One of the secrets of Mr. Wellcome's success is certainly his knack of always keeping his workmen happy and interested. There is no mistaking the fact that he has won, and now holds, their profound respect and also their whole-hearted affection. They look up to him with absolute confidence, and trust him as their unfailing benefactor, guide, and father.

Kadis, great holy Sheikhs, Cherifs, Fakis, Omdas, and other Sudanese notables travel long distances to visit Mr. Wellcome's camp, where some of their villagers have been employed, to see for themselves the mysterious excavations, workshops, the "House of Boulders" and other feats of engineering of which they have heard such wondrous tales from their people. But above all, they come to see what manner of man is this Englishman at Gebel Moya who has wrought such marvellous reformation in even the most hopeless vagabonds and outcasts of their villages. These visitors take keen and intelligent interest in the conditions of work, methods of training, organisation, discipline, savings bank system, provisions for health, food, water, etc., and they do not disguise their amazement and pleasure when they find it quite true that this man, who has been "making good Moslems out of bad ones," is himself a Christian. In practi-

cally every case these are shrewd men capable of forming a sound judgment especially concerning the handling of their own people, and they have, without exception, expressed their entire satisfaction, and have acknowledged with deep gratitude the benefits of this reformatory work which has so greatly uplifted their people. Not one word of complaint, dissatisfaction, or opposition has been received from these men; on the contrary, they have throughout given Mr. Wellcome their ardent support and practical assistance.

Perhaps the greatest triumph of all in this remarkable record of reformation has been the winning of the greater number of these natives—a few years ago no better than a herd of brute beasts—from a state of absolute indolence and almost continual drunkenness to one of industry, thrift, and complete abstention from the use of intoxicating liquors—a triumph which, I believe, no other man in the Sudan has as yet succeeded in accomplishing.

Lord Kitchener visited Mr. Wellcome at Gebel Moya and manifested keen interest in his researches, and expressed warm appreciation and approval of his welfare work and of his methods of discipline and training the natives in useful crafts and thrift.

Assuredly, if Mr. Wellcome had done nothing else to merit the commendation of his fellow-men, here is recorded an accomplishment which alone proves his worth as a civilising and humanising instrument among our neglected African brethren.

Mr. Wellcome's technical and administrative staff consists of twenty-five Europeans, who are provided with tropical tents, and seventy-five Greeks, Egyptians, and Syrians, who live under canvas or in grass huts. For his numerous non-resident Sudanese workmen he has built a model sanitary village surrounded by high protecting walls of impenetrable thorn bush.

The "House of Boulders" is a lofty, sun-proof building with massive stone walls, constructed by Mr. Wellcome out of colossal natural granite boulders, and is used for his administrative offices and laboratories.

CHAPTER XXV

Religious questions—Early Christian missions—First Roman Catholics in the Sudan—Father Ohrwalder—General Gordon and the missionaries—The Church Missionary Society and its operations—The Austrian Mission—Missionary stations in other parts of the Sudan—North American Mission—Khartoum Bishopric—Missionary work undertaken—Dr. Gwynne—Work of the Church of England—Native schools—Greek Church—Copts—Islamism—As an educational force—Mosques—Pilgrims—Annual exodus—Government regulations.

THE earliest Roman Catholic Christian missionary to enter the Sudan—then known as the Empire of Ethiopia—seems to have been Father Charles Xavierius de Brevedent, a Jesuit, who accompanied Dr. Poncet, a French doctor practising in Cairo, when he was sent for by the Emperor of Ethiopia, who happened to be suffering from a serious malady. This was in June of 1698.

It may here be stated that the worthy de Brevedent died of dysentery while in sight of his goal, just as his namesake, St. Francis Xavierius, had succumbed in China when within sight of the country which he had intended to convert.

In an interesting little work, *A Voyage to Aethiopia*,¹ Dr. Poncet, referring to the inhabitants whom he encountered, tells us: "Altho' Mahometanism is what at present they make Profession of, yet they know no more than the bare Formulary of their Profession of Faith, which they repeat upon all occasions. What is truly deplorable, and which drew Tears from the Eyes of Father Brevedent, my dear Companion, is, that it is not long since this was a

¹ "A Voyage to Aethiopia, made in the Years 1698, 1699 & 1700 describing Particularly that Famous Empire; also the Kingdoms of Dongola, Sennar, part of Egypt, &c. with the Natural History of those Parts, by Monsieur Poncet, M.D., Faithfully translated from the French original. London: Printed for W. Lewis at the Dolphin, next Tom's Coffee House, in Russell Street, Covent Garden, 1709."

Christian Country, and that it has not lost the Faith but only for want of some person who had zeal enough to consecrate himself to the Instruction of this abandoned Nation. Upon our way we found a great number of Hermitages and Churches half ruin'd."

Ethiopia at this time was a Christian Empire, and the people were described (in 1700) "as being extremely devoted to their faith," while the Church ceremonials seem to have been of a most elaborate and magnificent character. Dr. Poncet has described for us the Mass as celebrated at Gondar upon the Feast of the Assumption of the Blessed Virgin, a ceremony which must have proved impressive in the extreme.

The pious emperors of Ethiopia officially called themselves "Jesus Emperor of Aethiopia, of the Tribe of Judah, who has always vanquished his enemies."

Dr. Poncet likewise mentions that when he visited the King of Sennar he witnessed the carrying out of a sentence upon a criminal who, as he naïvely remarks, "had had the misfortune some time before to renounce the Christian religion and to embrace the Mahometan." The punishment inflicted he also describes: "They take the Criminal and throw him upon the Ground, then with great Clubs they beat him upon the Breast till he Expires. In this Manner during our stay at Sennar they treated an Aethiopian called Joseph."

The first Catholic Mission in the Sudan had been established in 1846, and continued to work, principally in Khartoum, until the troubles occasioned by the Mahdist rising put an end temporarily to their enterprise.

Father Joseph Ohrwalder, a priest of the Austrian Mission at Delen, in Kordofan, who had gone out to the Sudan in 1880, landed at Suakin on January 4, 1881, and almost at once encountered trouble and persecution. Father Alois Bonvini was then the head of the Roman Catholic Mission. The Church had its own Bishop—Dr. Comboni—some thirty-five years before an Anglican bishop was appointed in the person of Dr. Gwynne. Bishop Comboni died (Oct. 10, 1881) before the terrible events associated with the Mahdist rising occurred.

Father Ohrwalder,¹ with others, was taken prisoner, while the whole Catholic Mission was destroyed by the Mahdi; the sufferings of the unfortunate priests and sisters—Brothers Johan Diehl, Franz Pimezzoni, Joseph Rognotto, and Sisters Andreis, Corsi, Chincarini, Pesavento, and Venturini—proved horrible. Their counterpart can be found in the records of Bolshevism alone.

With the return of peace to the Sudan in 1898, missionary work was again taken up. At present there are four different bodies of missionaries labouring in the country—the Church Missionary Society, the Roman Catholic (Austrian), the Presbyterian (British Australasian), and the Presbyterian (United States of America). To each body has been allotted a clearly defined and extensive area in which operations may be carried on, no religious sect being permitted to interfere with another, or, for proselytising purposes, to enter a territory already occupied.

Although Charles George Gordon as far back as 1878 recommended the evangelisation of the Sudan, it was not until 1904 that any official assistance was rendered. Lord Cromer, the then British Agent at Cairo, addressed a letter to the Church Missionary Society offering to them an immense area of 70,000 square miles for missionary effort, adding: "The Sudan Government would welcome the co-operation of missionaries in the work of civilisation."

Anxious to profit by this opportunity, the Church Missionary Society sent out an earnest appeal for funds, the response to which was such that the Society was enabled to despatch to the Sudan in the month of October 1905 a small band of workers who have since laboured there with well-sustained continuity. Among the most energetic have been their leader, Archdeacon (now Bishop) Gwynne, and the Rev. A. Shaw, who has had full charge of the Mission and its work since 1908.

The Sudan Government had not remained content to

¹ Father Ohrwalder was the author of the well-known book, *Ten Years of Captivity in the Mahdi's Camp*, translated into English and provided with a preface by Sir F. Reginald Wingate. This book was first published in 1892, and has gone through six editions. The Father died at an age under 60 in Omdurman.

merely give facilities, and then allow the work to go on as best it might ; under the close supervision of the former Governor-General (Sir F. Reginald Wingate) the Society's operations were followed and assisted, the importance of industrial as well as religious education of the natives being consistently urged. In 1911 the Church Missionary Society workers numbered but three, and a lay worker. Work was facilitated by the arrival in the country of three additional recruits, so that a staff of six earnest young men became available. Thus reinforced, the efforts which had been limited to the districts around Maleik were extended to several new stations which were opened. A new station—the first had been that at Maleik, situated 1000 miles from Khartoum—was subsequently opened at Lau, a village near Rumbek, located 150 miles to the north-west of the old station.

The progress of the Church Mission in the Sudan did not, however, stop here. Two additional recruits were found. In January 1913 yet another station was opened at Yambio, in the Azandé district, situated close to the French Congo frontier, and fully 300 miles inland from the Nile. The above stations comprise the whole of the Church Missionary Society establishments for the present.

In the Sudan the Roman Catholics have mission stations at Lul and Tonga, among the Shilluks, and at Dilling in the Nuba Mountains.

In the Blue Nile and Sennar little missionary work has yet been undertaken, while it is only within the past few years that any extension has taken place in the immense province of Kordofan. It was during the régime of the old Turkish government in the Sudan that the Austrian Mission first established its station at Dilling, and this has since been closed.

In Mongalla an active propaganda has been maintained. A fine and healthy station has now been completed at Maleik, the whole of the building work having been carried out by Dinka labour. It was at one time intended to open a school at Loka, but owing to the existence of sleeping-sickness in that district the idea had to be abandoned.

The Americans have laboured for over fifty years in the mission-field of Egypt—indeed it may be said that the missionary forces in that country that have effected the most striking results have been the American. A vast network of Christian schools, primary, elementary, and collegiate, has been created; the college at Assiout alone has an enrolment of 700 students, while in the different schools under American control there are over 17,000 pupils, of whom some 4000 are Moslems.

In the Sudan the United Presbyterian Church of North America maintains establishments at Khartoum, and at Doleib Hill, on the Sobat River. At the different mission stations there occur, it is claimed, ten thousand medical treatments in a year, many, nay most, of which are free, since the total contributions received from the patients do not exceed \$1000 (£200).

The whole of the mission work carried out in the Sudan by the Americans is under the supervision of the United Presbyterian Church of North America, and of the American Baptist Mission Society Commission.

The Church of England in the Sudan has done, and is doing, sound and useful work, more especially among the British officials in the Government service. Khartoum is naturally the most active centre.

The Anglo-Egyptian Sudan is one of four Archdeaconries in the diocese of the Anglican Bishop in Jerusalem. The other three are Palestine, Cyprus, and Egypt. The first Church of England missionary to come to the Sudan was the Rev. Llewellyn Henry Gwynne, who was sent out by the Church Missionary Society in 1899, and commenced work at Omdurman. This occurred soon after the famous battle which took place there on September 2, 1898, and which finally broke the power of the Mahdists in the Sudan, leaving the field open for pacifying work among the unfortunate people. Very little progress, however, was made at first by the Mission, since the Government, very rightly, objected to any vigorous proselytising campaign being conducted among a Mohammedan people still in all religious matters fanatical in the extreme. On the other hand, every

assistance and encouragement were offered by the Government for religious teaching among the British and other Christians, and much sound and lasting work was thus carried out. By the end of the year 1904 these labours had considerably prospered, and a second chaplain was despatched to the Sudan. Later a third chaplain was sent out. When the headquarters of the railway were removed from Halfa to Atbara, in 1906, a small brick church was erected at the latter place, and as, at the same period, Port Sudan was being converted into the principal harbour of the country, a second small but convenient building for religious services was also put up there. Both buildings were consecrated in 1906. The following year the ecclesiastical staff increased, so that more or less regular visits by the clergy were now possible among the Protestants living at all these towns, widely separated though they were. In 1908 the Arch-deaconry was promoted to a Suffragan Bishopric, and again Dr. Gwynne was selected as the first holder of the office. The erection of a cathedral was also commenced without awaiting the actual creation of a separate diocese. Meanwhile further regular divine services had been started at Wad Medani, in the Blue Nile Province, and at El Obeid, in Kordofan; and when in January 1912 the construction of Khartoum Cathedral had made sufficient headway to allow of divine service being conducted within its walls, a solemn dedication service was performed by the three Anglican Bishops of London, Chichester, and Khartoum, while among other Christian prelates who took part in this solemn rite were the Coptic Bishop, the Archbishop of Jerusalem, the Bishop of St. Paul in the Desert, and the Bishop of Gojjan.

Dr. Llewellyn Henry Gwynne was born in 1863, and, as his name suggests, he is a son of Wales, his birthplace being Kilvey, near Swansea. At the age of twenty-three he was appointed curate of St. Chad's, Derby, and after three years in that town he went to Nottingham to take a cure at St. Andrew's, and subsequently at Emmanuel, of which he became vicar in 1892. It was some seven years later that he went out as a missionary to the Sudan; in 1905, as

already mentioned, he was appointed Archdeacon, and in 1908 Bishop of the Anglican Church in Khartoum. He is also Assistant Bishop of Jerusalem, a post which was filled for twenty-eight years by the late Dr. Popham Blyth.

In October 1914 Canon Rennie MacInnes, M.A., succeeded Bishop Blyth in the See, which was created as far back as 1841, and which had been filled by the last-named prelate since 1887.

It is not improbable that a separate bishopric of the Sudan and Egypt may be hereafter established; there already exists an endowment fund, and this will no doubt be amplified considerably by subscriptions from the two Societies which usually assist in such matters and from among the general public.

Dr. Gwynne in the discharge of his duties, as simple missionary, archdeacon, and bishop, has always displayed great sympathy and much tact. Especially was this shown in his long and successful service during the war as Chaplain-General to the Forces. To his small and peaceful Sudan circle he endeared himself as much by his benignity of disposition and affability of demeanour as by his sincerity of purpose. No one who has enjoyed the privilege of conversing with this earnest Christian can remain unimpressed by his singleness of heart and simplicity of mind, qualities which confer a quiet dignity on his exalted station in the Church wholly compatible with his own rank as a distinguished member of it. Dr. Gwynne, who carries out the duties of his onerous and responsible office with fidelity and much quiet enthusiasm, is a good scholar and a sound preacher. He has done much to promote kindly intercourse in church matters, and his relations with other churchmen have always been *au mieux*.

Besides the great spiritual advantages which the Church of England has brought to the several hundreds of British Christian men and women whose lot has been cast for the time being in the Anglo-Egyptian Sudan, much good regenerative work is being carried on among the rising native population. A girls' school has been established at Khartoum, while another is carried on at Omdurman. Here

instruction in the Old and New Testaments is imparted unless parents, who are mostly Moslem, especially object. It is said that they very rarely do, a circumstance which shows a spirit of tolerance altogether remarkable. In 1907 Bishop Gwynne was approached by some of the Moslem officers in the Egyptian Army stationed at Atbara, who preferred a request that a girls' missionary school should be opened in that town.

A similar school has now been opened at Wad Medani. This establishment is placed under the Archdeaconry as part of its organisation, the Church Missionary Society not having been possessed of the necessary funds to enable them to undertake it. In addition to the schools, the Missionary Society carry on medical work at Omdurman, and at some stations situated on the White Nile, and in the western section of the Sudan.

The Greek Church is well represented in the Sudan, members of the community being found not only in Khartoum, where they have erected a handsome church and muster a considerable congregation, but in all of the principal and most of the smaller towns. As in Egypt, where the Greeks exceed 38,000 in number, so in the Sudan—to quote the words employed by the late Lord Cromer—the members of this community “carry high the torch of civilisation in their adopted country.” The Greek church at Khartoum is always well attended, while the members of the congregation are liberal in the financial support which they afford it. At Port Sudan likewise there has been established a small but handsome Orthodox church, while others are to be found in different parts of the Sudan.

Other recognised Christian sects are those of the Copts and Abyssinians—who are closely allied to the Copts—and of the Syrians, the last-named belonging both to the Church of England and to that of the American Presbyterians.

There exist over six hundred mosques in the Sudan, distributed in Khartoum and throughout the provinces; of these the greater number are public, while the remainder are private buildings. The most numerous edifices of this kind are to be found in the province of Dongola, and the

more handsome private buildings in Khartoum Town. In regard to the Upper Nile, the Bahr-el-Ghazal, and Mongalla, no mosques existed before 1906; to-day there have been erected some makeshift buildings at Renk and at Kodok in the first-named province, but they are only used by the local Jaalin and Dongolawi merchants. At Wau in the Bahr-el-Ghazal there is now one (stone-built) mosque, while at Mongalla the few Mohammedans are still without a regular place of worship. At El Obeid, in Kordofan, a handsome new building made of concrete blocks has been erected. The Government of the Kassala Province has assisted financially to provide two small mosques for the towns of Gedaref and Gallabat, while at Berber as many as six small buildings were run up in one year.

Next to the building in Khartoum, the finest mosque will be found at Port Sudan when the construction is completed. The Government again proved liberal, having contributed towards the cost, which will ultimately run into some thousands of pounds. At Suakin there are several small mosques, although the majority stand sadly in need of repair.

Every year thousands of Sudanese pilgrims make their way to the Hedjaz, on the road to Mecca, and the Government facilitates their journey as much as possible, while carefully preserving the country from any dangers arising from infection by imported diseases. Stringent and strictly maintained quarantine regulations exist. No one is allowed to enter or to leave the country in connection with the pilgrimage to Mecca except through the one port of Suakin. There is always a discrepancy between the numbers of those going and those returning, which is accounted for by the fact that many remain at Jeddah until the quarantine restrictions, which are, and necessarily must be, very severe, are withdrawn, or even until another pilgrim season comes round, while others, who leave *via* Suakin, return by Egyptian or Eritrean ports and *vice versa*.

CHAPTER XXVI

Archaeology—Valuable excavations—Government and private support—Professor Garstang's discoveries—Meroë—Astronomical Observatory—King Netegamon's statue—Bust of Augustus—Dr. G. A. Reisner's excavations at Kerma, Gebel Barkal, and Nuri—Harvard University support—Hyksos Period revealed—Discovers tombs of Ethiopian kings—Valuable historical evidences found—Professor F. L. Griffiths, Oxford University—Meroitic discoveries at Napata—Mr. H. S. Wellcome finds ancient sites farthest south—Archaeological excavations—Gebel Moya, etc.—Remarkable encampments and equipment—Unique discoveries and conditions—Dr. Reisner's valuable help—Kitchener and Wingate deeply interested.

THE archaeological work which for several years preceding the war was carried out in the Sudan under the direct encouragement and active assistance of the Government admittedly proved of importance. A special volume would be needed—and no doubt will one day be forthcoming—to deal adequately with the wide field of operations undertaken in the Sudan; within the necessarily prescribed limits of this chapter no more can be attempted than the bare enumeration of some among the different sites that have been, and are being explored, some by private enterprise, others by means of special grants made for the purpose by learned societies and educational establishments.

Professor John Garstang, D.Sc., B.Litt. (Oxon.), who has been engaged in archaeological research since 1909, has completed several seasons' work at Meroë. This work was carried out under the auspices of the University of Liverpool, and the expenses have been borne mainly by Robert Mond, Ralph Brocklebank, H. S. Wellcome, Major E. Rhodes, and several other gentlemen who formed a private committee to maintain the excavations. Professor Garstang

made valuable discoveries and explored ancient burial places and royal buildings 1910-12. In 1913, and again the next year, work was confined to the north-east corner of the royal city of Meroë, while a main street, cross-road, and the remains of several large edifices had been cleared.

Professor Garstang himself considers the most important archaeological result of the 1913 season's work was the clear evidence afforded that during the middle Meroitic period (300 B.C. to 22 B.C.) the custom of burial by cremation was introduced and adopted by the ruling class.

Some time ago, Sir Arthur Evans, as President of the Society of Antiquaries, inaugurated at Burlington House an exhibition of antiquities which illustrated to a remarkable degree, and in a manner not previously possible, the varying features of Ethiopian culture from the establishment of the Court at Meroë in the sixth and seventh centuries B.C. until the final destruction of the city in the fourth century of the present era. This was the fifth annual exhibition by the Sudan Excavations Committee to enable those interested in these researches to keep in touch with the work each year. Professor Garstang, to whom the scientific world is so deeply indebted, has pointed out that it was really only when the excavation of the royal city was nearing completion, that the relationship of its various buildings and of the remains associated with them became clear, thus providing a basis for a systematic chronology of the art products and culture periods of the site.

Sufficient exploration work has been conducted at Meroë to enable us to know—thanks to the discoveries of Professor Garstang—that this ancient and once beautiful city was formerly a scene of great wealth and luxury. Around it there stood a great city wall, and the main entrance from the north led through an imposing avenue of trees. People in those days practised the cremation of their dead, for the well-preserved remains of a great crematorium may now be seen by visitors to this buried city. The science of the stars, too, was not unknown. The royal city boasted an observatory, and records which the excavators have unearthed show that long ages ago the means

of systematic observations of sun and stars were made to determine the latitude and celestial phenomena.

PROFESSOR G. A. REISNER'S EXCAVATIONS

The archaeological researches of Dr. Reisner during the past thirty years are well known throughout the whole scientific world. His discoveries in the Sudan are considered to be almost as important and valuable as his remarkable finds in Egypt. His researches in Dongola combined with those made by Mr. H. S. Wellcome at Gebel Moya completely change our preconceived ideas respecting Sudanese history. Dr. Reisner, whose work is supported by Harvard University, is considered one of the greatest living authorities on Oriental archaeology especially as regards Egypt, the Sudan, and Palestine. He is renowned for his scientific methods, thoroughness, accuracy, and indefatigable energy, and is much esteemed by the small army of native workmen he employs.

Accompanied by his wife and daughter he has of late spent the winters excavating in the Sudan. Near Kerma and at Gebel Barkal he made many discoveries of the very highest importance, revealing an immense amount of entirely new information concerning the Hyksos Period and the Ethiopian kings, twenty of whose tombs he found and excavated. Dr. Reisner discovered and definitely established the, hitherto unknown, names and chronological order of dates of reign of more than a dozen of these kings, and he also found the tombs, names, and dates of many of the queens previously unrecorded. These were all kings and queens of the Ethiopian kingdom and were buried from the capital Napata.

Dr. Reisner continued his excavations on the Pyramid field at Nuri in 1918. Most of that season was devoted to the clearance of pyramids belonging to the Queens of the Ethiopian rulers whose names he discovered in the previous year, and the results of the full season's work completely substantiated and filled in with further detail the outline previously sketched. The finest single object discovered in the

year's work was a magnificent necklace in seven chains, three of gold beads, three of amazon-stones, and one of amethysts, found under the pyramid of Aspalta ; this treasure has fallen to the share of the Sudan Antiquities Museum.

PROFESSOR GRIFFITH'S DISCOVERIES AT NAPATA

The discoveries being conducted at Napata by Professor F. Llewellyn Griffith and members of the Oxford Expedition in the neighbourhood of Merowe, the chief town of the province of Dongola (not to be confused with Meroë, which is pronounced almost the same), have also proved very fruitful. The ancient city of Napata once stood upon this site, near the holy mountain of Barkal, where the remains of temples and pyramids testify to its great importance as a city.

The Oxford Expedition was occupied, under the direction of Professor Francis Llewellyn Griffith of the University of Oxford, in first opening up a cemetery, then a temple, and, thirdly, in a group of remarkable buildings no doubt used as royal treasuries. Nearly 1500 different graves were disturbed, and in most of them were found interesting specimens of pottery, weapons, and instruments, as well as numerous scarabs and ornaments. The temple was identified as that of Tirhago, while the treasuries—having chambers seventeen in number—had been completely cleared. The roof of each chamber was supported by twelve large and sixty-three smaller stone columns ; the walls were of brick, and were lined with thin slabs of stone.

Much additional valuable archaeological work has been done in the Anglo-Egyptian Sudan by Professor Griffith at Faras, and by Professor M'Iver at Halfa.

MR. WELLCOME'S ARCHAEOLOGICAL RESEARCHES AT GEBEL MOYA AND OTHER SITES IN THE SUDAN

Following his previous Sudan explorations, Mr. Wellcome has carried out several consecutive archaeological excavation expeditions in the province of Sennar.

The main archaeological site is located within the recesses of the hills known as Gebel Moya, several hundred

feet above the plain, and is encompassed by lofty, rugged natural walls of rock. At the time of Mr. Wellcome's discovery, the site itself was covered, and to a considerable extent heaped with loose rocks. The clearance of thousands of tons of these rocks from the surface involved an immense amount of labour. The site was at that time very inaccessible, and could only be approached through a steep rocky gorge obstructed by large boulders. Transport of supplies and equipment was impracticable, and even the passage of men was difficult. It was therefore found necessary to cut a graded zigzag road leading up through the gorge from the foot of the hills to the level of the site. This remarkable feat of engineering was accomplished during the first season with the aid of primitive implements only. In constructing this road it was necessary to make cuttings through ledges of solid rock, to move huge granite boulders weighing many tons, to fill up deep khors (*i.e.* ravines) with rocks and debris, and to construct great retaining walls of boulders to support the outer banks of the roadway.

Since the first season an overhead power transport cableway, from the foot of the hills to a station in the camp, has been erected, narrow-gauge surface trolley lines have been laid throughout the camp, and excavations and many other improvements have been carried out to facilitate the operations, and to secure comfort and health to the staff and workmen.

Transport for communications and supplies for so large an expedition becomes a serious matter in a wild region like this. Camels surpass all other animals for desert trekking and general transport, but they are not hill climbers. Mules and donkeys, on the other hand, are good climbers, and well suited for short desert journeys. For Mr. Wellcome's requirements he found it necessary to procure all these means of transport, and he now possesses a large number of fine riding and transport camels, mules, and donkeys; also for certain heavy work he uses bullocks. These animals are all under the charge of efficient veteran camel-corps men and syces (grooms), receive the best of care, and are sheltered near the camp in well-constructed zarebas.

The Gebel Moya encampment is both extensive and picturesque, affording a wide-spreading view over the surrounding country. Mr. Wellcome and his European, Egyptian, and Sudanese staff live under canvas. The principal tents are of the best Indian Army pattern; all others are Egyptian. The main camp is situated at the northern extremity of the archaeological site, and is laid out with regular streets, the borders of which are effectively lined with large stones. A wide open square in the centre is reserved for musters, inspections, and drills.

The tents occupied by Mr. Wellcome and the chief members of his English staff are pitched on broad terraces, formed by excavating into the hillsides and supporting the outer banks with retaining walls of large granite boulders. Several buildings have been erected for use as offices, archaeological, anthropological, and anatomical laboratories, workrooms, photographic dark rooms, workshops, stores, a canteen, etc. Some are constructed of stone, while others are of corrugated iron and asbestos.

The local native workmen live in their old dilapidated village near by, but for those who come from afar Mr. Wellcome has laid out a model camp village at the foot of the Gebel. The *tukls* (grass houses), like all native dwellings, are circular in shape, built with natural wood posts and covered with heavily thatched grass roofs. The *tukls* of this model camp village are constructed by the most expert native builders and thatchers, and are, in every way, superior to the ordinary native huts. Great care is taken to ensure cleanliness, comfort, and strict observance of recognised sanitary rules.

Young boys who are not with their parents or guardians are grouped in special *tukls*, and placed under the care of trusty matrons who are made responsible for their protection and good conduct, as well as for the proper cooking of their food, which is issued to them regularly as rations on a fixed scale.

The whole camp village is enclosed in a thick outer wall of thorn bush for protection against prowling wild beasts and robbers, and is laid out in squares intersected by wide streets; each habitation has its own private compound

walled in with thorn bush. Those who dwell within the camp village are under the control of a responsible sheikh.

All Mr. Wellcome's camps alike are remarkable for their cleanliness, good order, discipline, and for the thoroughness and efficiency of the medical and sanitary systems enforced. The English Medical Officer of the Expedition acts also as Chief of the Sanitary Department. "Prevention" is the watchword, and the most stringent precautions are taken to avoid contamination of drinking-water and to render it absolutely free from germs.

Large stone crematoria have been erected for burning camp refuse. Every tent, every structure, every nook and corner of the camp is thoroughly and regularly inspected, and each European, Egyptian, and native is required to observe rigorously the sanitary rules and regulations laid down. All native workmen are medically examined before engagement, and are constantly kept under watchful observation.

As a result of these precautions, no infectious disease has ever been contracted within any one of the camps; an extraordinarily high standard of health is maintained, both amongst Europeans and natives. No man or boy is allowed to work if found to be unfit, while free medical attendance and medicines are given to staff and workmen and their families. A free hospital is likewise provided for cases requiring special attention. The success of these practical preventive measures supplies a valuable object lesson for all who dwell in the regions of dread tropical diseases, be it in Africa or elsewhere.

At the beginning of the Gebel Moya excavations Mr. Wellcome was greatly handicapped, for he was almost single-handed; he had no suitable outfit, and he was obliged to extemporise nearly every implement and appliance required. Now the Expedition has a complete equipment of all manner of plant, implements, and technical appliances requisite for the scientific excavations and research work so systematically carried out here. Many items of the plant, implements and appliances have been specially designed for the purposes of this Expedition. Since the first season

Mr. Wellcome has had the assistance of an adequate and efficient English administrative and technical staff.

As regards the actual archæological excavations, I am able to record only a few brief notes, for Mr. Wellcome is still determined to reserve details and conclusions until after his researches are completed.

The main site at Gebel Moya has an area of about two hundred thousand square metres. The extensive excavations already made have revealed the remains of a series of prehistoric settlements dating back to very remote periods. Here are found not only relics illustrative of the arts, crafts, and daily life of countless succeeding generations of the ancient inhabitants, but also cemeteries representing corresponding periods and containing human remains of a range of types including a race of very large stature. In many cases, associated with the burials, are found objects which will undoubtedly go far towards establishing definite periods, dates, etc. The human remains are not only being measured, studied, and recorded *in situ*, but the crania, and in many cases the entire remains in the original posture as found, are being preserved by specially devised processes.

Amongst the immense variety of objects discovered here I may mention the following :

- (a) An extensive series of types of stone implements, including axes, adzes, chisels, planes, hammers, etc., in nearly every stage of evolution ; also many other tools of bone, ivory, and other materials.
- (b) Pottery in great variety—all hand-made—ranging from crude and primitive types to highly finished and elaborately decorated examples of extraordinary quality and grace.
- (c) Remains of workshops, containing various tools and materials ; also objects in all stages of manufacture, indicating an industrial settlement.
- (d) Numerous ornaments and other objects in great variety.

In addition to Gebel Moya, Mr. Wellcome has been excavating three other sites which he discovered in the winter of 1910-11, namely, Sagadi, Dar-el-Mek, and Aloa. Each of these sites has its own special and distinctive

features, but they all appear to be linked up with Gebel Moya, and to represent interesting periods.

After the excavations at these sites are completed, the classification and study of the whole vast amount and variety of archaeological, anthropological, and anatomical material obtained, most of which is unique, will occupy several years. The results will be published in the form of a voluminous and fully illustrated official Report.

Throughout these researches, Mr. Wellcome has been greatly encouraged and assisted by the advice of several eminent Egyptologists, especially Dr. G. A. Reisner, whose thorough and precise scientific systems of archaeological excavation and of recording are well known and widely adopted by scientific archaeologists. These systems are employed and strictly carried out at Gebel Moya, while the most exact written and photographic records are also made at each step. Every object, however fragmentary, if it serves to show the handiwork of man, or if it be of archaeological, anatomical, or anthropological interest, is carefully preserved for study.

Dr. Reisner, whose own excavation work has been referred to previously, has taken great interest in Mr. Wellcome's discoveries and excavations, and has supported him in the most practical manner by loaning to him each year fifty of his own specially trained Egyptian experts, some of whom have been in Dr. Reisner's service in Egypt and Nubia for over twenty years. These trustworthy men have been of the utmost assistance, not only by their own skilful work, but also by teaching the Sudanese workmen.

In February 1914 Dr. Reisner at great sacrifice left his own archaeological work at Kerma and visited Mr. Wellcome's Sudan excavation camps for a fortnight. He studied the sites, tested the untouched control sections which Mr. Wellcome had left in every division of all his excavations, and also personally conducted special new and original experimental researches. These investigations enabled Dr. Reisner to settle definitely certain difficult problems of great importance, and to give Mr. Wellcome invaluable general advice on these sites. In his published notes Dr. G. A.

Reisner states, "The excavations carried out by Mr. H. S. Wellcome at Gebel Moya have thrown an unexpected light on the history of this region during the early part of the Ethiopian monarchy. For the first time a scientific archaeological record has been made of a site in the interior of Africa. The importance of these results are so great for the history of the Sudan that it is sincerely to be hoped Mr. Wellcome may continue his work and extend it to other sites. Only by such researches shall we ever be able to compile a history of that part of the Sudan which lies beyond the borders of Egyptian Kush."

The prehistoric periods of ancient Ethiopia are shrouded in profound mystery. Very little is known of the Ethiopian races and of their influence upon Egyptian and other civilisations. The region of the Gebel Moya operations is said to have been the source of certain religious cults adopted by Egypt; we know very little of the origin of these beliefs, or of the part the Ethiopians took in their formation.

Mr. Wellcome has entered an untouched field in African archaeology, and one of great importance. He is conducting his researches with such thoroughness and scientific precision that it is anticipated when his work is fully completed he will be able to throw considerable light upon the history of the Ethiopian races in the Great Past, and also to assist in solving some of the subtle problems of the primitive civilisations of the Dark Continent and possibly reveal something affecting the influences of ancient Africa upon the Mediterranean regions. Lord Kitchener and the Governor-General Sir Reginald Wingate from the first recognised the value of Mr. Wellcome's archaeological and anthropological discoveries, and in every way encouraged him to continue his excavations. The publication of his official Reports will be awaited with keen interest in scientific circles.

DISCOVERIES AT MAMÁN

The so-called ruined "habitations" of Mamán are particularly interesting on account of the fact that so little authentic information exists concerning them. Opinions differ as to

the exact nature of the erections—were they dwelling-houses or merely sepulchres? My view is strongly in favour of the latter theory, and I base my judgment upon the following facts:

The erections are irregular in size, and located at uncertain distances from each other, just as are the mausoleums in most modern cemeteries; there is no semblance of any roadway, street, or causeway having existed; the entrances to the structures are so low—but 24 to 36 inches in height—and the interiors are so completely deprived of light and air, that it is inconceivable people so accustomed to sunshine and open-air life as were the original inhabitants of the Sudan—or Ethiopia—ever could or would have lived in such veritable prisons: the largest interior does not exceed 10 feet square, the majority proving, upon measurement, to be considerably less.

The whole appearance and style of the buildings strongly suggest remote modern Mohammēdan tombs of the sheikhs, minus the outer covering of plaster and the rich interior ornamentations. In all probability these curious structures were the tombs of the elect of some vanished town, removed to a considerable distance from it, as was, and still is, customary in the East, or where Eastern customs prevail. This theory, if correct, would argue that the ruins of Mamān are *post*-Mohammedan, whereas some authorities believe them to be infinitely older, and, indeed, so old as to be almost beyond computation.

The buildings are from 20 to 25 feet in height, about 15 feet or less square at the base, and are constructed in three "stories," that is to say, the first is some 8 feet high, and perfectly square in shape, with one small oblong entrance opening, which, as already mentioned, measures at most 36 inches high, by 24 inches wide. A moderately big man would find great difficulty in forcing his way inside. The second story is also square in shape, but less wide and less broad, being perhaps 6 to 8 feet square, while the third story is dome-shaped. The domes stand between 8 and 12 feet in height, and like the rest of the structures are formed of thin layers of slaty rock, gathered from the side

of the mountain or range of rocky hills bearing the common name of Mamán.

The constructions bear no trace whatever of any mortar nor even of any binding material having been employed to hold the stones—roof and walls—together; the slates have been simply placed upon one another, layer upon layer, with remarkable neatness and precision, the square bases of each structure being mathematically perfect. Only the lower of the three stories, forming a distinct chamber, is hollow, the upper story and the dome being a mass of homogeneous stones, some apparently of immense weight.

There being nothing but the strength of the four walls—none are less than 24 inches in thickness—to support the heavy weight of the second story and the dome, it can well be understood how so many of the structures—fully 80 per cent—have fallen in. Among the whole of these innumerable erections not one remains absolutely perfect, although several are almost so.*

The edifices extend in an irregular and much broken line for a distance of about three miles along the base of the lofty rocky hills which seemingly furnished the whole of the material for the constructions; some are erected in small groups of four or five, but the majority stand quite apart. Formerly the whole mountain slope and a considerable part of the summit must have been almost covered with these strange buildings, the ruins being still clearly evident. In all probability, where earth or sand formed any part of the foundations upon which they originally stood, these have been washed away in the course of time by the torrential rains which fall periodically in the district, and which have, in the passage of years, worn deep ravines or khors in the ground in every direction.

Another fact which convinces me that these structures were at no time inhabited by living people, is their great distance from any permanent water-supply. Moreover, excavations in several directions round about have completely failed to produce the slightest evidence of domestic life having been carried on either upon or anywhere near the mountains.

CHAPTER XXVII

Society—January festivities—Importance of the month—Official ceremonies—Palace receptions—Official attendances—Uniforms—Restrictions imposed—Native State costumes—Governor-General's season—Palace hospitality—Social amusements—Sports and entertainments—Lack of theatre or concert hall—The Shambat Gardens—The Sudan Club—Tennis parties and gossip—The domestic servant problem—Class of servants obtainable—Cost of living—House-keeping troubles—Furnishing.

It is perhaps quite proper that the month of January should be selected for holding the "social week" of the Sudan year, since that month is fraught with peculiar interest and importance for the country. It was in January of 1885 that the action around Metemma took place, and that the battle of Abu Klea was fought and won. Also in January, three years later (1888), the action at Handub was successfully carried out, while the fall of Khartoum and the ever-memorable death of the heroic Gordon had occurred on the 26th of that month 1885. Other events of moment have been the fall of El Obeid (1883); the dual control of Egypt, abolished in the same year; the Sudan Convention signed sixteen years later (1899), and the opening of the Nile-Red Sea Railway (1906). It was in January of 1912 that their Majesties King George and Queen Mary visited the Sudan for the first time, landing at Port Sudan on the 17th of that month, and spending several pleasant days as the guests of the then Sirdar and Lady Wingate.

Official receptions held at Khartoum are accompanied by some of the pleasing features which attend Royal or State celebrations at home, and to such functions Sudan officials and civilians alike attach a corresponding amount of importance. The show of uniforms and display of

decorations, together with the relatively few but usually tasteful toilettes of the ladies present, lend a decidedly attractive aspect to the proceedings.

The whole official element of the Sudan (that is to say, in the provinces)—both military and civil—appear in uniform when on duty, but in the towns of Khartoum, Port Sudan, and Atbara only those officials who are specially authorised to do so, for the due performance of executive duties, are thus attired. At levees and high functions officers assume the Egyptian Army pattern uniform with white helmets, chin straps of white leather, and Government pattern pugaree. The gilt badge, in the form of a brooch, the design consisting of letters "S.C.S." with oak and palm branches, is worn in front over the centre of this pugaree.

The levee coat is of white drill with buttoned-up collar and linen collar inside, showing $\frac{1}{8}$ -inch above the coat collar. The buttons are gilt and bear the monogram "S.C.S." Detachable cuffs, embroidered in gold, with intertwined oak and palm branches, are worn on the sleeves, and gorget patches of similar design on the collar. The coat has two cuts up the back, which lend a decidedly smart appearance. Overalls of white drill, boots of patent leather, and white kid gloves complete a becoming attire.

The mounted military dress is equally attractive. The helmet worn is of the khaki Wolseley pattern, with a blue pugaree, the chin strap, however, in this case, being of brown leather. The coat of khaki serge or drill has an open roll-collar and bears the Government buttons as worn with levee dress, while a white shirt collar, with black sailor-knot tie, looks well. The breeches are of Bedford cord or khaki material, button or lace-up, the gaiters of brown leather, and the boots brown lacing. Some officers wear hunting spurs with all-leather straps.

There is not much distinction between mounted and official dress, the difference consisting in the trousers, of the same material as the coat, being worn in place of breeches and gaiters. The full mounted dress worn by the superintendents of police is hardly less effective than that adopted by other officials, and while on duty the police superin-

tendents carry the Sam Browne belt, with revolver, lanyard, and whistle.

The brilliant uniforms—civil robes and native robes of honour—both of a religious and non-religious character—occasionally provide an Oriental and correspondingly effective colour scheme, some of the first-named consisting of purple cloth with gold embroidery and rosaries, while the second—divided into four different classes—embrace robes of brilliant red cloth with gold embroideries, others of a vivid green satin lined with red silk and heavily decorated with gold embroideries, and other similarly bright-hued materials.

With the annual return of the Governor-General to Khartoum, usually in November, both the official and social season may be considered to commence.

The arrival of the Governor-General and his modest suite at Khartoum is naturally regarded as an important event, and all who can attend the ceremony make a point of doing so. *En route*, at Atbara, the Governor-General's train is met by the heads of the departments and their wives. Escorts of honour meet the special train both at Atbara and at Khartoum, while a company mount guard at the Palace.

The social amusements offered at Khartoum have since the war become of greater interest, their promotion and arrangement having secured the close attention and assistance of the heads of the various Government departments. In November—a month which, as already stated, marks the commencement of the winter social season—regimental sports are held, attractive and lengthy programmes being arranged; these include preliminary heats and rounds of various events, semi-finals and finals, all of which come off within a few days of one another, while a concert usually concludes the meeting. Various British regiments, while quartered at Khartoum, in times past have greatly distinguished themselves in different events, such as cricket, football, etc. Cricket and football matches are held during the winter months, the boys of the Gordon College, upon whose grounds the contests take place, showing the keenest enjoyment in these, perhaps, the best of

Britain's manly pastimes. The always popular band of some British regiment, and the no less proficient band of the Sudanese Infantry, contribute upon these occasions to the liveliness of the proceedings. Football, by a curious anomaly, is played alternately with cricket, the season commencing towards the last days of October, and continuing until the setting-in of the hot days of early April. The Khartoum British Football Club hold their games upon the Gordon College ground, and many stirring encounters have taken place with the Royal Garrison Artillery and other earnest contestants.

No attempt has yet been made to endow Khartoum with a permanent entertainment-house in the form of a theatre or an assembly hall ; it does not even possess a suitable hall or a large room of any kind where social gatherings may take place. That such a building would prove useful, there is little doubt ; but it is not a want which can be regarded as urgently felt. The residents can very well dispense with this convenience until such time as the Municipality can find the money necessary to construct a hall, or until some sufficiently enterprising private individual deems the occasion propitious for putting the scheme—oft mooted—into practical execution.

Of moving-picture shows Khartoum, of course, possesses its share, and, on the whole, these entertainments would appear to attract fair audiences. The European element is insufficiently numerous to encourage a first-class entertainment ; but the Arab and native population of the three towns—Khartoum, Khartoum North, and Omdurman—are numerically strong enough to support an amusement palace of moderate size and offering a suitable form of entertainment.

The Shambat Gardens, located within easy reach of Khartoum, are well kept, and offer a pleasant rendezvous on Saturday and Sunday afternoons, the Municipality having encouraged the continuance of this private enterprise by introducing special tramway services in connection with the Gardens entertainments.

The absence of other forms of regular amusement does

not appear to create any keen feelings of regret or disappointment among the European residents; the majority find a sufficiency of diversion in their more serious daily occupations, the pursuit of which, and not the search for entertainment, has originally brought them to live in the Sudan.

The Sudan Club, a comfortable but by no means a capacious building, pleasantly situated in its own picturesque grounds, is the scene of frequent hospitality, and forms a favourite rendezvous for high civil and military officials. Its doors are not open, however, to the junior ranks, who, having a club of their own—as have also the British sergeants attached to the Egyptian Army—find consolation in frequent small friendly reunions. If the dividing line between the ranks of officialdom is somewhat sharply defined, there appears to exist no spirit of resentment among the excluded, nor yet any attempt to jump the invisible but no less tangible barrier that has been erected in the Sudan social world.

Tennis parties and afternoon visits exchanged between the ladies of the official community are forms of daily diversion and provide friendly intercourse.

The domestic servant problem, if not quite so acute in the Sudan as it is found in most other parts of the world, notably in India, is at least unsatisfactory, and as difficult to solve so far as the procuring of really efficient house attendants is concerned. The number of young and old, large and small, experienced and inexperienced, offering their services is unlimited; but among them it may perhaps be reckoned that fully 90 per cent are either utterly worthless or nearly so. If the variety and prolixity of the *chits* (written characters) which they offer for perusal, and of which each applicant would appear to possess a small collection, could be relied upon, these gentry one and all should be patterns of propriety and honesty, of fidelity and assiduity, with no other object in life than that of a devotion to yourself; and all this in return for a mere pittance of wages, and with no other view than to live and die for you.

If it be a simple cook whom you seek, a dozen *chits*

will in a twinkling be produced, setting forth, upon crested, monogrammed, or Club-headed note-paper, the numerous domestic perfections of "Ahmed" or "Josef" or "Ismail"—as the case may be. Should it be a personal attendant, such as a coachman or a gardener or a house-boy, the same applicant will furnish from his inexhaustible and diversified accumulation of testimonials solemn and detailed assurances of his undoubted attainments in each one and all of the necessary qualifications.

That so many respectable and responsible employers can be brought to supply these grossly deceptive recommendations of individuals whom they must know to be, or to have been, scoundrels or incompetents—probably both—has long been a mystery to every one who has travelled in the East. India is and always has been full of blackleg-servants who are abundantly supplied with *chits* of this description; indeed, a regular traffic appears to be carried on in them, one applicant lending *chits* to another, while some, no doubt, have been stolen and others forged. There exist no means of differentiation between the genuine and the false; in the majority of cases the signatory is either far distant, has left the country, or is dead. Were he alive and accessible, however, he would probably resent being worried by cross-examination upon the accuracy or otherwise of a mere *chit*, no matter whether the results of his having written and signed it have entailed trouble and possibly financial loss upon the unfortunate victim by whom it was accepted as an honest testimonial.

In India, notwithstanding all the precautions that are supposed to be taken by regular agents like Cook, Grinlay, King, and others, one is entirely in the dark regarding the *bona fides* of the average servant. One must engage him with one's eyes shut, and it is a hundred to one that his testimonials refer to some one else. It has been known that three would-be bearers applied to a new European arrival one after the other—each one more disreputable in appearance than the other—with the same set of testimonials.

If servants sometimes prove a trial—and most people

who employ them will declare that they do—housekeeping brings fresh troubles to the European resident in the Sudan. House rents, in practically all cases, are exceedingly high. Many of the officials have found it more economical, and decidedly more convenient, to build houses for themselves, while others have had to put up with what accommodation they happened to find available.

The cost of living, as in all parts of the world since the war, has risen, but perhaps not so high as in Europe and the United States. Although very much advanced in some respects, it remains moderate in others. Thus, servants' wages amount to a very considerable item when the number of domestics demanded by an ordinary household—again as is the case in India—is taken into consideration. All stores, usually received in bulk from Europe, or purchased locally from one or two first-class import houses, cost at least 100 per cent more than the same articles would formerly have represented at home. Meat and poultry—in Khartoum and on the river or coast—are still moderately cheap and plentiful, while vegetables, although greatly inferior both in size and flavour to European-grown produce, are not unreasonably expensive. Flour, eggs, butter, and milk range in price anything between 10 per cent and 15 per cent in advance of what householders at home now usually pay. Horse fodder fetches very much higher prices, while the charges for the service of water, electric light and power, and sanitary services average an advance of from 10 per cent to 20 per cent upon pre-war home prices.

Articles of household furniture, if purchased new, represent an advance of at least 100 per cent in prices; goods of a superior quality, however, are rarely met with, for Europeans who find it necessary to furnish and equip their residences, as a rule bring out serviceable but moderately priced articles, bearing in mind that when the time arrives that they must leave the country it would be useless to take back with them to Europe but few—if indeed any—of the different articles forming their *lares et penates* in the Sudan. Thus it often occurs that local auction sales of superfluous household goods offer opportunities for new-

comers to acquire a number of useful and necessary articles, especially such as table-glass, china, camp equipment, bed-linen, and furniture.

For some years past the Sudan has ventured to vie with Egypt itself as a winter resort ; it claims, and with reason, the possession of certain climatic advantages in which the sister country is lacking. There are those indeed who consider a winter in Khartoum to be preferable in some respects to one passed wholly in Cairo. Assuredly much has been attempted upon the part of the authorities to gain popularity for Khartoum and other districts, and their efforts have not been unfruitful. Under normal circumstances many of those who came up to Khartoum either from Cairo or Alexandria, or who entered the country *via* Port Sudan, may be looked for again the following year ; few are disappointed upon their first experience — the majority, indeed, confess themselves completely fascinated by the peculiar allurements which the Sudan offers.

CHAPTER XXVIII

Commerce—Antiquity of Arabian trade—The Red Sea and Nile Valley route—Trade in Mahdi times—Commercial crisis, 1911-12—Long-credit system—Commercial travellers—Sudan Chamber of Commerce—Tayiba Experimental Farm and cotton-growing—Causes of commercial depression—Greeks as traders—Remarkable enterprise—Forgery of British trade-marks—Remedies—Lack of European exploitation—Opportunities open—Agricultural implements—Farm machinery—Oil-burning engines—Cotton goods—Native requirements—Grey goods and prints—Banking.

THE Arabs were the first foreign merchants of whom ancient history has anything to record. «They were composed of the Southern tribes, the reputed descendants of Ishmael and Esau, and we read of them carrying goods and bags of silver from one distant place to another. And it was on the Nile that the earliest commercial communities seem to have been formed, proving, as they did, the pioneers of foreign trade. Difficult, indeed, must they have found the task of conducting their business, since the three most essential elements were missing—means of transport, freedom of labour and exchange, and security. Nevertheless, as we know, trade was gradually built up, first and foremost by these same Arabs, and secondly by the Jews, the Greeks, and the Phoenicians. Egypt and, of course, the territory now known as the Sudan, may therefore be regarded as the cradle of the world's commerce. And, moreover, it was well maintained through all subsequent periods—when competition was met with from other portions of the world; when Carthage was opening up trade with the less accessible parts of Europe; when Palmyra became the centre of commercial intercourse and transit—only to be destroyed, after centuries of prosperity, as had been Tyre, Corinth, and Athens.

One of the most important trade routes into Europe from

the East led *via* the Red Sea and the Nile Valley to Alexandria, and certain historians assert, with much reason, that such wars as those of the Crusades were due as much to the economic importance of holding the "road-ends"—of which the Nile Valley route was one—as to religious causes.

When the Sudan was occupied by the British and Egyptian troops in 1898, commerce was found practically non-existent. In Egypt itself things were but very little better, for the country had for long been badly governed, and great timidity reigned among both the commercial and financial classes of the community. The Government of the Sudan was therefore compelled at first to establish almost a trade monopoly, but at the same time it took active steps to foster agriculture and a number of other native industries among the still cowed and greatly discouraged people. And very soon they succeeded beyond their most sanguine expectations.

During the subsequent crisis which visited Egypt (in 1911-12), and in connection with which several prominent establishments, including the Bank of Egypt, "came down," the Sudan suffered, but in a less degree than might have been anticipated. A few firms found themselves unable to meet their financial engagements, a circumstance which not unnaturally occasioned some unfavourable comment abroad. The reprehensible, but apparently unavoidable, long-credit system which is in vogue here, as elsewhere, proved a strong factor in the matter, for in the Sudan the commercial system demands not only that long credit should be granted by merchants abroad to their agents there, but by local agents to their customers. Thus any financial stringency—and this must be expected to present itself sooner or later in any new country in the course of its commercial development—had a very wide influence.

The general ignorance existing upon matters geographical is responsible for the supposition that the Sudan and Egypt are practically one and the same country, and they are usually mentioned together in the same way as are "England and Wales," or, say, "North and South Carolina." Notwithstanding the fact that Cairo and Khartoum are separ-

ated by some 1356 miles, that it takes from four to five days to reach one capital from the other by the most expeditious method, that the great majority of Egyptians have never even seen the Sudan, while but a very small proportion of the Sudanese have ever been as far as Egypt, merchants and shippers at home seem to imagine that an agent in one country can at the same time exercise his full functions in the other. An appointment to "Egypt and the Sudan" may be expected to prove even less productive of beneficial results than one which embraces "France and America," or "Australia and Italy." An agent, a representative moreover who is intimately acquainted with the requirements of the people of each country, is absolutely necessary, and not one for both.

The fact does not seem to be sufficiently appreciated that there exist—and have for some years existed—two institutions whose establishment was especially designed to promote trade and commerce between the Anglo-Egyptian Sudan and foreign countries. The first—which has the advantage of being official—is the Central Economic Board, which has already succeeded in proving its usefulness to the industrial and commercial development of the country; the second is the Sudan Chamber of Commerce, which is gradually assuming a position of authority and influence which is bound in course of time to be felt abroad as well as locally.

The Chamber was established about nine years ago. Of the members the majority are local and the rest foreign subscribers. The Government has so far recognised the utility of the Chamber as to seek the advice of its members upon several commercial matters, such as charges on the royalties upon gum and the cleanliness of the product.

The Central Economic Board was called into being by a special Government Order in June of 1906. Thus it has had fourteen years in which to prove its worth as a factor in the commercial prosperity of the Sudan. The Board at present consists of six members, including the President, who control its proceedings which are purely consultative, the Board possessing no executive authority outside the

exercise of its own particular functions. The value of its work may be found in the substantial and informative monthly, as well as annual, reports which are published ; in the organisation of museums and exhibitions ; in the diffusion of useful commercial intelligence ; in the extension of trade relations with other countries—especially those in the immediate neighbourhood, such as Abyssinia, the French Congo, and the Belgian Congo, Arabia, and Aden ; in the support and encouragement of native agriculture, and in the scientific analysis and investigation of the principal economic products of the country.

The average Englishman visiting the Anglo-Egyptian Sudan, whose thoughts are permitted to dwell as much upon economic matters as upon those relating to purely personal enjoyment and recreation, must experience a sensation of disappointment that so little British enterprise is in evidence designed to assist in the economic development of the country and of its undoubtedly rich resources. One cannot resist the conviction that if the Sudan belonged to the people of any other nation—say, to those of the United States, Germany, or Belgium—it would be dotted with factories, blossoming with farms and cultivated lands, and well supplied with light railways, for which the physical features of the country admirably adapt it, and in all probability would possess a white population ten times as large as that which it owns at present. As matters have progressed, one sees but very few of these things. Neither are there to be found many British agents or merchants established there to promote and encourage trade with the Old Country ; but of Greek, Syrian, German—afresh already,—French, and Russian enterprise there are several representatives, and it may be assumed that these same representatives of other and more enterprising races would not have been attracted to, or have settled in, the Sudan unless the economic characteristics of the Protectorate had proved enticing. If the prospects held out are deemed satisfactory to foreign interests, why should they prove any less alluring to our own people—to the British manufacturer, shipper, and trader ?

In the neighbouring States of Senegambia, which is French, and of Eritrea, which is Italian, a large proportion of the local trade is carried on by French and Italian merchants in conjunction with native associates. Indeed, in Eritrea some 80 per cent of the working capital employed in manufacturing and other enterprises is Italian, a very small proportion of trade being in the hands of other foreigners. In what was formerly German East Africa one might have seen the same interest displayed in local enterprise; apparently it is only in the British-redeemed and British-administered Sudan that foreigners are permitted to come in and avail themselves of its promising advantages, to the self-elected exclusion of the British. The question is—"Shall this kind of—what our American friends call—'fool-business' continue?" Or is the fresh era, which has witnessed already so many, and is likely to witness so many more, important changes in the commercial affairs of the world, destined to see a new spirit of enterprise introduced into the Sudan, now become more than ever our legitimate field? Will any encouragement be lent to the earnest efforts of the Administration to turn the abundant natural resources of the country to profitable account?

The Arab and Greek merchants, who literally abound in Khartoum, Omdurman, and other of the large towns of the Sudan, are far too numerous and keen in rivalry to enable individual fortunes to be made or retained by any one among them; the majority, moreover, possess little or no capital, and only a very small amount of available cash: their business in its course is conducted upon highly speculative and haphazard lines, sound commercial principles for the most part being entirely ignored. Then, again, mutual jealousies, tribal and family rivalries, and continual contention among the merchants themselves account, to an exceptionally large degree, for the general absence of prosperity among them.

Among the members of the Sudan commercial community the great majority of the Greek traders stand high. Indeed they have proved themselves very useful members of the community from the earliest days of Sudanese history.

Many of them attached themselves to both the Egyptian and the British troops in 1884-85, and to the enterprise of these people may be ascribed the circumstance that the conditions of the commissariat were so much better than would otherwise have been experienced, since, owing to the miserable insufficiency of the troops' supplies—due to the indifference and incompetence of the Department of the then Secretary of War (the Marquis of Lansdowne)—both provisions and equipments were deplorably bad and insufficient.

In Egypt, as in some of the Latin-American Republics—notably Argentina and Brazil—where the demand for genuine British-made goods is large, there are to be found a number of dishonest merchants who make a practice of fixing some of the best-known trade-marks to foreign-made and inferior goods which they send to the Sudan. When manufacturers at home can protect themselves and their customers from frauds of this character, it is their bounden duty to do so ; in Latin-America favourable decisions are not to be relied upon by the Courts—which, indeed, are more inclined to protect the native swindler than safeguard the interests of the foreigner—but in Egypt the law is more honest, and prosecutions for fraud in connection with falsifying trade-marks are nearly always successful.

During the two decades that have elapsed since the Sudan was finally redeemed from bankruptcy, commerce and industry have made certain but by no means sensational advancement. There does not appear to have been any concerted or general effort to develop the country commercially upon any recognised and acceptable system ; if one excepts the ill-timed and mostly unsuccessful efforts to exploit the Sudan as a " gold-field " in 1900-1904, the attention of European capitalists has been studiously directed away from the country, and its exploitation has been almost entirely ignored. And yet, from a purely commercial aspect, the people of the Sudan might with advantage be better cultivated. It is true they have but little money to spend upon expensive luxuries or costly mechanical appliances ; nevertheless there are many enterprising members of the trading community—Greeks,

Syrians, Arabs, and Coptic Christians—who are inclined to enter into enterprises such as the erection of soda-water factories, the employment of grain-cleaning machinery, the introduction of small electrical plants, etc., etc., upon a small scale, who might be worth the attention of home manufacturers. Agricultural implements are already finding a market, while cotton gins and, to a less extent, moderate-priced irrigation machinery, such as pumps and engines, are being asked for. It is almost certain that if travellers well acquainted with the language and the customs of the people, were to devote several months to moving about among them, in such towns as Khartoum, Omdurman, Suakin, El Obeid, Dueim, Kosti, etc., etc., a connection could be built up for such articles as modern farm tools, labourers' and carpenters' stores, small machinery, and agricultural implements—including ploughs, harrows, contractors' barrows, and light hand-carts.

For many years to come coal must remain very expensive, so that small engines burning crude oil would find a market. There is no other fuel available; the idea which existed at one time that something serviceable could have been done with "sudd" fuel, made from the papyrus plant, has been put aside as impracticable. Where the Government, who were greatly interested in the experiments, found the fuel to be unsuitable, it is hardly likely that private consumers would prove more successful.

I cannot say that I view with any degree of enthusiasm the progress of the market for manufactured cotton goods. The native women of the Sudan appear to pay absolutely no attention to their personal appearance, and expend little or nothing upon their adornment. With remarkable unanimity of taste they wrap themselves in folds of an ugly, colourless, coarse material, known as *damur*, which is manufactured upon primitive native looms from locally grown cotton, and beyond this and some rough kind of leather sandals, likewise fashioned in the bazaars, the majority of the natives make no use of clothing.

Among the better classes of Arabs and Egyptians, however, there exists a moderate demand for yarn and

grey goods; but the small quantity which finds its way into the Sudan is often destined for re-sale to Abyssinia. Importers assert that fully 50 per cent of their cotton goods consist of "grey," the bleached representing 25 per cent, and the coloured goods and prints accounting for the other 25 per cent. The grey goods include fine sheeting, shirting, long-cloth, and *dhooties*. These last are used as loin-cloths and girdles, as in India, and occasionally as turbans, instead of the more expensive *tanjibs*. Fancy-striped bleached goods, some being of what is known as *doriah* design, and some with *leno* and *dobby* effects, find a demand among the better-class natives. These latter also prefer foreign manufactured grey or bleached goods to prints, of which latter very few are sold.

The Sudan-grown linseed is of a particularly fine quality. While the fibres of the plant are employed in the manufacture of linen—as in Ireland—oil is obtained from the mucilaginous coat of the seed, and the refuse is made into cakes for cattle. We obtain the greater part of our requirements at present from one of our own possessions—India—and formerly from Russia and the Argentine Republic. Owing to the heavy rains throughout Argentina, and more particularly in the linseed-growing area, there had latterly been a serious falling-off in the crop. Had there been any organisation available, and sufficient enterprise forthcoming, the Sudan might have easily provided the whole of the supply which the Argentine and Russia have been unable to furnish.

The annual consumption of linseed is something like 16,000,000 bushels. The question is, "How much of this could be obtained regularly from the Sudan?" The country can grow the three marketable varieties—the red, the white, and the brown—and experts declare that they could, before the war, be sold freely in this country, and presumably in others, at 47s. 6d. per quarter in small quantities and at 44s. in larger consignments. To put the industry of linseed cultivation upon a sound and permanent basis, capital will be required. The Sudan Government, at the present time,

cannot be asked or expected to assist in finding it ; neither should they do so, since the enterprise, if undertaken, is essentially the business of private adventure. But such co-operation and encouragement as the authorities can legitimately render to make the enterprise a financial success may assuredly be depended upon. But so far, linseed has only been grown experimentally and none has been exported. Here there should be found a very favourable opportunity for exploiting one out of the many natural resources of the Sudan, and one which offers exceptional facilities.

But there are other chances as tempting to the capitalist who is looking for a remunerative investment in a new country, controlled by sound and wise administration. It is only necessary to refer to some of them—to the openings for carrying on a trade in hides and skins, in gum arabic, in millet, sesame, ground-nuts, senna, jute, and vegetable ivory (the nut of the dom palm), all of which enterprises could be handled in such a manner as to prove highly remunerative to those who enter into the business and correspondingly beneficial to the country in which they are conducted.

Under the auspices of the Imperial Institute energetic efforts have already been made to create a market in the United Kingdom for the ground-nuts grown in India and West Africa. Their export from India, Gambia, and Nigeria has amounted to over seven million hundredweights of the value of nearly £4,000,000 in one year ; hitherto France and Germany have between them absorbed the greater part of this supply. On the outbreak of the European War the cessation of trade with Germany and the great diminution of the French demand placed Indian producers in a very serious position.

A certain quantity of the nuts have of late been imported into Hull for the production of ground-nut oil, which is suitable for use as an edible oil as well as for soap-making. In the United States they have a large street sale as roasted peanuts. There appears no reason why the same produce found in the Sudan should not find favour in all of these markets.

The Government Experimental Farm at Tayiba has already shown that an excellent quality of cotton can be grown in the Sudan. At Tokar also, under competent official supervision of the methods of agriculture, the quality of the cotton has during the past few years much improved. Once a railway is built to Tokar—and of this there is now some likelihood—the local cotton industry should assume an entirely different aspect.

In the early days of the Sudan, under the Condominium, two of the Cairo banks—the National Bank of Egypt and the Bank of Egypt—established branches in the Sudan. The first-named institution was proposed as far back as 1876, after the financial crash in Egypt and the suspension of the payment of Treasury bills. It was not, however, until June 25, 1898, that the institution was created, and endowed with the authority to issue promissory notes. The second-named establishment, the Bank of Egypt, had already been in actual existence for some years, having been incorporated under a Royal Charter which was granted on January 25, 1856; the head office was situated in London, while that of the rival institution was in Cairo.

The capital of the National Bank of Egypt is £3,000,000 sterling, and there is a reserve fund amounting to £2,000,000. In addition to at least sixteen branches established in Egypt, the bank possesses five branches in the Sudan, *i.e.* at Khartoum, Port Sudan, Suakin, and El Obeid—the latter being open for a few months of the year only, during the busy gum season from January to March. The National Bank of Egypt has also a branch at Wad Medani and an agency at Tokar during the cotton season.

The affiliated bank—the Agricultural of Egypt—a much later enterprise, incorporated by Khedivial Decree in 1902—had carried on but little business in the Sudan up to the time of the failure of the Bank of Egypt in September 1911; but there had been put into circulation certain unofficial rumours to the effect that a branch office would be opened in the Sudan to supply the void left by the suspended

institution, which, if carried out, would have practically put the whole of the banking arrangements into the hands of one financial group, for, as previously mentioned, the National Bank of Egypt is the parent, as well as the London Agent, of the Agricultural Bank of Egypt, the Governor of the one being also usually President of the Council of Administration of the other.

The Anglo-Egyptian Bank, Limited, which does a certain amount of business in the Sudan, with one branch at Khartoum, has a subscribed capital of £1,800,000, a paid-up capital of £600,000, and a reserve fund of £710,000.

Other banks are the Land Bank and the Union Foncière; while among leading trading institutions doing business in the Sudan but having their principal quarters in Egypt, are the Aboukir Co., the Delta Loan and Investments Co., the Egyptian and Foreign Trust, the Egyptian Markets, the New Egyptian Co., and the Sudan Plantations Co.

In Khartoum the bank conducts a very safe and profitable business, the nature of which varies but little from that which is carried on by all first-class institutions. The National is the bank used by the Government,

What promises to become a useful and successful innovation has of recent times been introduced in the form of a Post Office Savings Bank for the natives. The decree bringing this institution into being bears date May 24, 1913, the first branches opened in the country being those at Khartoum, Khartoum North, Omdurman, Atbara, Merowé, and Dongola. It has been, and still is, no easy task to convince the people that their money can be considered safe in the keeping of the Government post-office clerk (a native Egyptian), and they cannot as yet realise that a mere slip of printed paper handed out to them together with a small book showing the amounts of their withdrawals can possibly represent the same value as the good, tangible, clinking silver piastres with which they have just parted. Nevertheless they are learning that this is so, and gradually their confidence is being gained; in some districts, at least, a spirit of thriftiness and providence is being successfully fostered among a people who, hitherto, have not only mis-

trusted the foreigner, but more especially their fellow-natives.

It is intended, should the experiment in other towns mentioned be successful,—and, as indicated, this seems to be already proved,—to open branches of the Savings Bank in all of the principal towns of the Sudan. The banks are established for the safe custody of such small sums of money as depositors may from time to time be able to save, but not of money which they require for use from day to day. An account may be closed at any time at the discretion of the Director of Posts and Telegraphs, should a depositor persist, in spite of warning, in improperly using the facilities which are provided free of charge by the Government.

The desire of the Sudan Government to encourage economy and thrift among the lower classes is a further striking feature of the statesmanship which had been observable during the long administration of Sir Reginald Wingate as Governor-General, and zealously continued by his successor Sir Lee Stack. Both have followed very closely the maxim laid down by Sir Robert Peel—a maxim copied and quoted likewise by the late Lord Cromer both in India and Egypt—"to allow of an appreciable margin in the hands of the taxpayer to fructify in the pockets of the people."

A great and a good work will have been done if the Sudanese peasantry can be wooed from an almost complete indifference to their economic future; from their propensity for borrowing recklessly from their neighbours at usurious rates of interest; and from their latterly acquired over-indulgences in luxurious foods—such as tea and sugar—and from otherwise gratifying too grossly the passing pleasures of appetite.

CHAPTER XXIX

Gum trade—Importance to revenue—Production—System of Government royalties—Exports to foreign countries—Egypt as a customer—Government restrictions—Gambling by dealers—The gum season—Kordofan market—Provincial tolls—Scenes in the gum market—Gum from Gedaref—Tobacco—Government control—Senna—Future of European trade—Insect pests—Success of Wellcome Laboratories' experiments—Mining—Government policy—British companies—Prospecting—Difficulties and costs.

THE importance of the gum trade of the Sudan may be appreciated from the fact that the bulk of the receipts from royalties is derived from this industry.

The value of the gum trade has advanced enormously since 1906; whereas the total quantity of gum collected in that year amounted to 7290 tons, by the end of 1913 the total had reached 15,129 tons, and by 1917 it totalled 16,613 tons. But this figure, large as it seems, by no means represents the highest results attained; for the year 1912 the total amount collected and disposed of had amounted to 19,615 tons, representing a money value of £E603,511, while even the year before that (1911) witnessed an output of 14,357 tons of gum, and worth £E435,622, marketed throughout the Sudan.

Previous to the year 1913 the Government royalty upon gum was levied at an *ad valorem* rate of 20 per cent on the price per kantar.¹ This system being found unsatisfactory, however, a fixed royalty per kantar, irrespective of the market price, was determined upon, and this now replaces the *ad valorem* method. The reason which induced the change is said to have been the inelasticity of the system formerly in force; from season to season, and also during the season, prices

¹ The kantar=100 lbs.

fluctuated considerably, and it was found that if the *ad valorem* system of assessing the royalty were to be equitably applied the royalty would have to vary approximately with the price of gum. Undoubtedly the fixed charge has proved more workable, and it also seems to have satisfied the wishes of the different gum merchants, a fact which perhaps constitutes its soundest recommendation.

It may be mentioned that while the gum forests of the Sudan are allotted to certain villages for their exploitation, they remain practically the exclusive property of the Government, which thus is enabled to demand a royalty upon their production. It has been thought that eventually the Government, as owners of the soil and of the trees upon it, may decide to limit the yield of the gum to the prevailing requirements of the market. This would certainly put an end to any wild speculation or gambling, and at the same time would tend to keep prices steady. That the trade had fallen into a thoroughly unhealthy condition was clearly proved by wholesale dealers abroad having sold on contract for as much as a whole year in advance.

The Sudan gum "season" activity lasts for, perhaps, five months of the year, but those who are engaged in it find constant occupation between the end of December and the commencement of July. During the months of February, March, and April there are daily arrivals at the market at El Obeid of the article carried by camels and donkeys from varying distances; these sometimes amounting to seventy or eighty miles, and necessitating five or six days' slow travelling. Each pack arrival is made to enter separately the gum market. This is merely a large square sandy area of ground surrounded by nothing more resistant to intruders than a few dead thorn-bushes thrown down in the form of a rough *zareba*, or fence; beside a gap made at the side the toll-keeper and one native policeman stand as sentinels. A toll of 5 piastres (one shilling) for each transport camel, and $2\frac{1}{2}$ piastres (sixpence) for each ass is demanded by the Government; this impost is entirely independent of the road-tax which all owners of animals must pay in addition for each transport beast.

At the commencement of 1914 a new set of regulations was introduced regarding the control of auctioneers, brokers, and merchants concerned in the gum trade of Kordofan. All gum brought into El Obeid market for sale is now weighed on the Government machines, and for this operation a fee is charged at the rate of 5 milliemmes per kantar. Only licensed brokers are permitted to buy gum in the open market, while none are permitted to purchase until the gum has passed through the market gates. A rate of commission, calculated at 5 milliemmes per kantar (of 120 rottls), is the highest legal charge that can be made, while every broker is compelled to keep a separate record of his transactions on behalf of each of his principals.

Continual disputes—conducted with all the rich Arab expletives and violent gesticulations—nevertheless prevail in the market-place, noisy altercations proceeding simultaneously between the brokers engaged on the one side and the merchants upon the other, as well as between the individual merchant and his own broker; the authorities, who otherwise stand by perfectly impassive and clearly very much bored, being occasionally compelled to intervene.

The gathering in of the gum crop in Kordofan and other places in the Sudan begins usually one month after the rains are over, say in September.

Crude gum is picked and sorted over almost entirely by women and young girls, who sit cross-legged on the uncarpeted ground, or stand erect, as they may elect, at their seemingly very uninteresting and monotonous occupation. For a nine-hours' day they receive the extremely moderate wage of 5 piastres (one shilling), but this rate of remuneration seems to content them. Syrian male overseers are put in charge of the operations, and they appear to be both smart and capable. The gum is divided into two grades, the best going mainly to the United States, while the inferior quality is disposed of locally.

A very large quantity of the class known as Hashab Godaref gum is despatched from the district of Gedaref by camel transport, and then reforwarded to Italy *via* Massowah, the port of the Italian colony of Eritrea, the authorities

allowing the produce to enter the mother country free of duty. For exports to Italy the Hashab Gedaref can thus compete with Hashab Kordofan, because the latter, being shipped *via* Port Sudan, is subject to the payment of full duty upon entry into Italy. But so soon as the projected railway line, Gedaref-Kassala-Red Sea (forming part of the great Gezira development scheme, and to be built out of the six millions sterling guaranteed loan), is completed, the gum from this province will be diverted back to its proper shipping port (Port Sudan) in the Sudan. It is expected that as a result of the new railway the annual output of Gedaref gum will immensely increase in future years.

Tobacco has not been cultivated in the Sudan to any large extent, notwithstanding the highly favourable soil which is found there, on account of an agreement made with Egypt, by the terms of which the Sudan Government undertook to abstain from permitting the pursuit of tobacco cultivation. This agreement bore date March 1, 1904, and the conditions have since been faithfully observed, although they were entered into more as a sop to the susceptibilities of Greece than anything else. The only cultivation of the plant which is allowed in the Sudan is in the districts south of Wad Medani and El Obeid, and there it must be subject to the consent of the respective Governors of the provinces. In no case is any of the product permitted to find its way into Egypt. On the other hand, by a decree dated January 24, 1914, the import duties were made leviable upon tobacco of whatever origin brought into the Sudan.

Senna leaves from the Sudan have already established a sound reputation in the markets of Europe as being of an exceptionally excellent quality; unfortunately, a tendency to adulterate the leaf has lately been noticed, a practice which, if unchecked, may lead to serious consequences for the industry—just now promising so well. Higher prices have been obtained for the Sudan product than for any other kinds; every effort, therefore, should be made to punish the adulterators. In the Sudan one finds Senna plant of both the long-leaved—*Cassia elongata*—and the short-leaved—*Cassia acutifolia*, or Alexandria—species.

Among other natural products as yet almost untouched as articles of export is frankincense, a gum-resin obtained from the tree known as the *Boswellia Carterii* of the order of Burseraceae. Up till recently most of this resin had been obtained from Somaliland ; but of late small quantities have been found in the Nuba Mountains and Kordofan Provinces of the Sudan. Certain samples collected from the Dilling neighbourhood have been valued as high as £E2800 m/m. per kantar (of 110 rottls). Other samples brought in from Nalud proved somewhat less valuable ; but sufficient experience has been gained to enable it to be seen that an attractive export trade in this article could be built up.

Like many, if not most other countries, agriculture in the Sudan suffers from the attentions of a number of insect pests ; among these the locusts, as in Argentina, Paraguay, and other parts of South America, commit terrible ravages among the young and growing crops. The worst visitations experienced have generally been in the Khartoum Province ; here, however, the energetic steps which have been taken to counter the attacks have proved successful. Nevertheless several small crops—some grown upon the Government's experimental farm—have at different times been either partially or wholly destroyed. Among other precautions taken have been the preparation and supply to the natives, free of charge, of large quantities of a strong chemical preparation ; this, when promptly applied, has had great destructive effect upon one of the most troublesome pests known to agriculturists.

At other times *asal* occurs, especially in the districts of Kassala and Mefaza, as well as in the southern parts of the Province of Berber. The Blue Nile Province has its own particular pests in the form of the *buda* parasite plant and the *andat* beetle, the latter insect attacking the young *dura* heads, while still green, and sucking out the moisture. Both in this province and in that of Berber the *sueda* (smut) nuisance is known, while in nearly all of the departments millions of small birds commit serious depredations among the growing and matured crops.

The white ant is another terribly destructive insect ; it is

found practically everywhere throughout the Sudan—even in the middle of the uninhabited desert—and it is particularly to be dreaded where wood, leather, and cloth articles exist for it to feed upon. No one who has failed to witness the amount of destruction which a colony of these small but active creatures can effect in the course of a single day or night would credit the capabilities which they possess for doing damage. A patent preparation known as “apterite” has recently been found effective. The habits of the various pests are carefully studied in the elaborately equipped laboratories of the Wellcome Tropical Research (Gordon College), and much valuable assistance in both preventing and overcoming the greater part of them has been rendered by the chemists of the institution.

The real mineral wealth of the Sudan is almost entirely unknown; it may be enormous—it may be insignificant. Indications, however, point to the fact that the minerals may eventually prove of considerable importance. North of the 18th parallel of latitude traces of ancient workings may be found in numerous different directions, but what was the amount of treasure taken from them in former times remains wholly conjectural.

References have been made by several historical writers to the mineral deposits of what is now known as the Sudan; the majority of these authors, however, cannot be regarded as altogether trustworthy. Our old friend Dr. Poncet, the French physician who travelled through these regions in the early part of the seventeenth century, and who seems to have gathered a great deal of miscellaneous information, is one of those who appear to have been impressed with the undeveloped mineral wealth of the country. He mentions that very rich deposits of the precious metal existed in the ancient kingdom of Nerea, one of the frontier states of Ethiopia, which, according to Herodotus, was the land of the Upper Nile, otherwise the Sudan. This place is also described as the Kash or Kesh (the Cush of the Bible), which was subject to Egypt, in the eighth century

B.C., but later became an independent monarchy. Dr. Poncet declares that the king of this country drew part of his enormous wealth from the mines. He also noticed the large amount of the precious metal which was carried down from the mountains during the rainy season (April to September). "The torrents," he adds, "swell extremely and carry Gold along with them, much more pure than that which they draw from the Mines. The Peasants pick it up with a great deal of care."

Ethiopia, part of the Sudan, is also synonymous with Habashat, and the kingdom of Habashat is now known under the modern name of Abyssinia. The Axumite kings had extended their dominion from the beginning of the sixth century A.D. over all this part of Africa, which was known to be rich in gold as well as in silver, copper, and other metals.

The late M. Frank Czernay, an Austrian explorer, a resident at Khartoum during 1913-14, and a traveller of some years' experience, at one time having large coffee plantations in Abyssinia located not far from the Sudan frontier, showed me upon one occasion some specimens of alluvial gold which he had found in the Sudan. Previously he had located four different gold-fields in the late Emperor Menelik's kingdom; two of these that dusky and dishonest potentate had at once appropriated for himself, without offering even the smallest reward or compensation to the discoverer; the other two mines remain undeveloped pending the introduction of the necessary foreign capital.

The Sudanese gold discoveries were duly reported to the Government at Khartoum; but since the fields (always supposing that the indications of rich alluvial deposits were found to be worth following up) were said to be located in a part of the country peopled by unruly and warlike tribes, the authorities wisely refused for the time being to issue any permit to work the ground. To have done so effectively would have necessitated the continued presence of a strong military guard; this might conceivably have resulted in creating further trouble with the people living upon the frontier and round about. Some day, perhaps, when the benefits of British administration are better understood and

more keenly appreciated, and when this wild part of the Sudan shall have been made to "toe the line," we may hear something more of Frank Czernay's early but unsuccessful discoveries. Unfortunately the ever-hopeful pioneer died quite suddenly from a sunstroke in Khartoum in May of 1914, at the early age of thirty-two. He was a man of remarkable ability and powers of endurance, as well as a particularly agreeable companion.

Latter-day mining enterprise has proved, perhaps, less encouraging than any other kind of industrial undertaking in the Sudan; and yet there are not wanting those who affirm that the great prosperity of the country may still prove to be in its undiscovered mineral wealth. Not one tithe of the vast area of the Sudan—extending to 5,624,000 square kilometres—has been prospected, and no one really knows what hidden natural treasure it may contain.

What we do know is that gold, silver, and other precious metals were worked in ancient Egypt some thousands of years ago; Diodorus, the Roman historian—who, however, never visited Africa during his thirty years of travel and research—declares that a record in the tomb of Osymandyas at Thebes (supposed time, XIXth dynasty) gives the total produce of gold and silver mines at "32,000,000 of minae," which would be equal to about £133,000,000 sterling. Diodorus does not give these figures upon his own authority, however, but upon that of Hecataeus, who died about 476 B.C. and certainly did travel in both Egypt and Libya. No reliance can, however, be placed upon the estimates of that early Greek writer, for even his own countryman, Herodotus, throws doubts upon some of his statements.

Coming down to more recent times we find the Austrian mining expert, J. Russegger, declaring in 1838 that "there is enormous wealth of gold in the interior of Africa (*i.e.* the Sudan) within the matrix of the primitive rock and in the alluvia of the streams and rivers."

Prospecting has been undertaken almost from the time that the Sudan was reoccupied, but up till now little sensational has occurred to reward the enterprise of the pioneers. In 1903 Messrs Lake & Currie sent out a repre-

sentative, Mr. G. R. Carey, to prospect a concession in Dongola covering 28,000 square miles; during the three years that the concession endured nothing but some old gold diggings, together with some lignite, salt, and iron deposits of no commercial value, were discovered. The following year—1904—a well-known mining engineer, Mr. Arthur Llewellyn, a member of the firm of John Taylor & Sons, Limited, went out to the Sudan and spent several months prospecting for the Egyptian and Sudan Mining Syndicate, Limited. The licences upon the concessions, however, were allowed to expire in September 1907.

Another concession was that held by the Egyptian Sudan Exploration Company, which was abandoned in August 1903, after Professor Link, Mr. Pearless, and Mr. G. A. Wright had all spent several months in investigating an alleged mineral-bearing area in Kordofan lying between latitudes $10^{\circ} 30'$ and $12^{\circ} 30'$ N. Nevertheless it was of Kordofan that the extremely optimistic Russegger had written: "The bed of every stream exhibits a gold-bearing alluvium."

At about similar dates, *i.e.* between 1900 and 1904, other companies or syndicates were formed in England to take up Sudan gold-mining concessions. These included the Gabait Mining Syndicate, an affiliated concern to the Sudan Mines, Limited, which engaged the services of Mr. Noel Griffin and Mr. W. H. Snell; the Egyptian Sudan Minerals, Limited, which employed Captain M'Cormick and Messrs. Joseph Badge, H. Lancaster Hobbs, and G. Graves Gifford—all of whom are or were excellent men, and well known in their profession; the London & Sudan Development Syndicate, which was prospected by several equally capable mining engineers—Messrs. C. K. Digby-Jones, Seal, Greaves, and Ackermann—for Messrs. Bewick & Moreing—and J. H. Means; the Nubia (Sudan) Development Company, which was served by Messrs. Peregrine C. Wilson and A. Mackinnon; the Suakin Mining Syndicate, represented by Messrs. A. P. Griffiths and Joseph Eslick; the Sudan Gold Field, Limited, whose prospecting work was carried out under the supervision of Mr. Arthur Llewellyn; the Sudan

Exploration Company, also under the control of Messrs. John Taylor & Sons, who employed Mr. Arthur Thomas to prospect the Company's concession ; the Tokar Prospecting Syndicate, Limited, whose concession area was examined by Messrs. W. H. Stockley and J. F. Morris ; and finally the Victoria Investment Corporation, whose area was prospected by Mr. Stanley C. Dunn, an exceptionally competent young mining engineer, holding a responsible position under the Sudan Government as geologist.

Of the above twelve mining enterprises but one, the Sudan Gold Field, Limited, has retained its original concession, and this concern confines its work at present entirely to the extraction of gold from the Um Nabardi Mine ore, and the development of that mine underground. All of the other eleven enterprises have either surrendered their concessions or have allowed them to expire by effluxion of time.

Disappointing as the results must have proved hitherto, both to the entrepreneurs and to shareholders who helped to find the capital to enable them to make their investigations, it must be borne in mind that nothing like a sufficiently comprehensive or careful examination has yet been made of the Sudan as a geological field, which would enable a definite judgment to be passed upon its future mineral prospects. The greater portion of the country still remains to be prospected, and within the next few years the extended observations of Government officials and travellers should increase our knowledge in this respect.

The Um Nabardi gold-mines are supposed to have been worked by the ancients as far back as 2000 years, while the Arabs also worked them in the early years of the Christian era. The mediaeval Arabs, it is certain, knew of these mines, and after exhausting them for the time being,—as they supposed,—during the tenth century A.D., they deliberately filled up the shafts and covered up their tracks.

The Sudan Gold Field Company, Limited, was formed in 1908. Under all four superintendents a considerable amount of development work was carried out, and at one time the mine was in a high state of expansion. The

main reef had been proved to be a true fissure vein, and at greater depths profitable ore bodies had been found to exist. During the years which have passed since the present proprietors got seriously to work, the mine has been materially deepened and an enormous amount of development in other directions has been completed—levels have been driven, shafts sunk, tram lines and a long railway line connecting up with the Sudan Government railway main track have been laid, while an ample water-supply has been provided, and substantial management houses and offices erected.

At first, and indeed for long, disappointments and discouragements were met with. During the two years 1909-10, for example, the stoping operations as a whole were found unsatisfactory, while the deeper levels proved less productive than anticipated. In the following year, however, the results achieved became decidedly more inspiring, and many indications were observed which pointed to the fact that the area being worked would prove, as in fact it has proved, an important one.

By the end of 1912 the enlarged programme of development which had been adopted seemed justified by results, several gratifying discoveries having been made in the northern section of the mine—namely in the Robert Taylor and the Garland shafts. The air-shafts to the east and west of Garland's—particularly in the latter direction—likewise opened up blocks of ore of a highly payable nature. Altogether that year's working showed a very material improvement in the general conditions, the reserves of ore being more than doubled. The Company devoted its resources to increase its equipment, more especially in connection with the stamping plant.

In August 1919, owing to various causes, notably the falling off in the grade of the ore in the mine, work was discontinued. An offer was received for the whole of the Company's machinery and plant, worth some £20,000, and this was accepted and considered a good bargain for the purchasers and not altogether a bad one for the shareholders. It was the idea of the directors of the Company

to utilise this sum for the purpose of taking up oil propositions in the Sudan, but the proposal met with a good deal of opposition upon the part of certain shareholders in the Sudan Gold Field Company, who even went to the Chancery Division to obtain an injunction against the directors proceeding further with their proposals. The Court having dismissed the objection raised, the Company was left to prospect without restraint for oil and petroleum under licence from the Sudan Government.

Hitherto there has been afforded but little inducement to "prospect" for minerals in the Sudan by "small" men, that is to say, by those unprovided with a sufficiency of capital. The whole mineralised country, which is largely waterless and possessed of no fixed population, undoubtedly affords evidence of having been largely worked for gold by the ancients, whose energies in this direction, judging by the number of abandoned workings with which one meets, must have been prodigious; but in those days the labour was to a great extent forced, and the physical sufferings of the miners employed beneath the surface did not enter into the consideration of the pioneers of the industry. Even to-day, when labour is well paid, it is not superabundant, although, on the whole, very efficient.

To organise an expedition to prospect upon even a modest scale, at least £1000 would before the war have been required to provide the necessary equipment. To-day the figure must be put, even conservatively, at three times that amount; even then continual disappointment and discouragement must be expected. Of the several attempts in the direction of mineral-prospecting which recent years have witnessed, few have resulted in anything beyond extremely modest discoveries, and only a small portion of development work has been proceeded with. In the few cases referred to, the prospectors appear to have been practical and experienced men, supported to some extent by a financial backing and outside resources such as the stranger, coming to the Sudan for the first time, and similarly unprovided, could hardly expect to find.

CHAPTER XXX

Private companies and Government support—Failures—The original Sudan Plantations Syndicate—Profits—Sources of revenue—New Egyptian Company—Reduction of Sudan interests—Papyrus commercially considered—Sudd Fuel ("Suddite") Company—Predominant German interests.

ALMOST as soon as the establishment of a firm and permanent government had been effected, speculators and investors turned their attention to the Sudan. While a wary and watchful eye was necessarily kept upon the former, and every precaution taken that they should not cause ruin to the country or help to bring its administration into disrepute, encouragement was held out to those who showed that their *bona fides* were unassailable. It was recognised by the Administration that the introduction of foreign capital into the country was desirable, not alone to assist in the development of the land, but to enter upon other enterprises calculated to lead to economic expansion.

Certain restrictions were imposed, and necessarily so; railway enterprise, for example, was not sanctioned upon the part of private individuals, while the Government kept within its own province the conduct of such other enterprises as the municipal tramways in Khartoum and the public markets in that and other towns. On the other hand, mineral concessions were granted to several private enterprises, while an exploration expedition, also under the auspices of a corporation, was both sanctioned and assisted by the Government. Further, a river-steamship line—conducted even in opposition to the Administration's own undertaking—was not only permitted to commence business

but was financially guaranteed by the authorities up to a certain point. It would seem, therefore, that the Government was far from niggardly in its dealings with private enterprise in the early days of the country's rehabilitation, and the reason for the failure of the majority of the undertakings then launched "to make good" must be sought in some other direction than that of discouragement by the Administration.

Among other companies formed at different times to work the natural riches of the Sudan have been the Sudan Exploration, Limited, the Sudan Development and Exploration Company, Limited, and the Nubia-Sudan Development Syndicate.

The Sudan Plantations Syndicate, Limited, has been in existence since 1904, and its directorate has remained practically unchanged.

The original capital was £80,000; this in March of 1910 was increased to £250,000 (authorised), 50,000 shares being issued at the substantial premium of £3 per share, while 68,000 shares of £1 each, destined to be issued at a premium of £4, and 25,000 shares to be issued at £5 per share premium, were held in reserve until the end of the year 1913. Of recent times the shares of the Company were the subject of much speculation, rising at one time to £8, and falling as low as £4 apiece, the quotation at time of writing being about £5.

The issued ordinary share capital of the Sudan Plantations Syndicate stands at about £135,000, while the debenture issue now amounts to £57,000. The financial position is considered to be a fairly strong one, the profit-and-loss account for the year 1915 showing a net profit of £1991. The shareholders in 1913 received a distribution at the rate of 12½ per cent, free of income tax, for the second year in succession, but as some of them had purchased their shares at a very high premium this did not mean quite so handsome a return upon their investment as at the first glance appeared to be the case. For the years 1914 and 1915 the dividend distribution was reduced to 5 per cent.

It was not considered probable that the European War would have much effect in regard to the Syndicate's main

industry—the cultivation of cotton. But as a fact it did. The exact amount of prosperity met with always depends upon the price that this product will secure, and that no one could foretell. But the height to which cotton soared during the war spelled the Company's fortunes. Cotton prices must depend upon the amount of competition met with from other cotton-growing countries such as Egypt and the United States. Both of these sources of supply provided the market before the Sudan, for whereas Egypt and America plant early in the spring, the Sudan does not commence operations until midsummer.

Students of Roman history will remember the report made by the centurions who were despatched by the Emperor Nero to discover the sources of the Nile, presumably with little idea of enriching the geographical knowledge of the day, but more probably finding out the easiest manner of invading the countries beyond Egypt. Seneca tells us something about this, and relates also how Nero's emissaries were assisted by the Queen Candace of that day upon their arrival at Meroë, the ancient capital of Ethiopia, and how they were finally compelled to turn back, their mission unfulfilled, owing to the river being blocked then, as it is to a less degree blocked even now, by vast quantities of sudd. The famous Spanish historian does not tell us what sort of reception the unsuccessful geographical commissioners met with at the hands of the delectable Nero; but it is not very difficult to divine.

Coming down to more recent times, Sir Samuel Baker, on his expedition to the Sudan, 1869-73, upon behalf of the Khedive Ismail of Egypt, "to suppress the slave-hunters of Central Africa, and to annex the countries constituting the Nile Basin," was seriously impeded by the sudd, especially beyond the Bahr Giraffe (Bahr-el-Zeráf) junction. His party, both slowly and laboriously, had to cut their way through "by means of several hundred sharp bill-hooks, switching-hooks, bean-hooks, sabres, etc., etc."; upon several occasions the steamer and fleet were completely closed in, and only escaped after a long, narrow channel was cut, and the vessels towed through the mass of vegetation.

Sir Samuel declares that he had at one time 1200 men at work upon this single task. Upon another occasion an accident of a serious nature happened to Ismail Pasha,¹ owing to a block caused by the sudd. "The prodigious rafts of vegetation were hurried before the stream like ice-floes," Sir Samuel relates, "and these masses having struck against a line of six *nuggers* (native river craft), the vessels were literally swept away and buried beneath the great rafts, until they capsized and disappeared for ever in the deep channel."

In 1863, although the two branches of the White Nile—the Bahr-el-Jebel and the Bahr-el-Zeráf—had always until then been navigable, the river at this point was completely blocked by sudd just above Lake No.

In 1878 Emin Pasha was unable to proceed up-river from the same cause; and notwithstanding that a great clearance had been made in 1879–80 by an Italian contractor engaged by the Egyptian Government, by 1884 sudd had again collected and the river was found as bad as ever.

Then came the Mahdi period of fifteen years' misrule, during which but few used the river unless they were compelled, while no one considered it necessary to attend to the sudd obstruction. In 1895 the Intelligence Department at Cairo received information to the effect that the river was entirely choked by the vegetation above Lake No; not only was it found extremely difficult to maintain communication with Central Africa, but it was discovered that the enormous accumulation of matter diminished the supply of fertilising water on which the whole life of Egypt practically depends.

Sudd is the name given to the large masses of papyrus plant and *oom súf* reeds which grow without interference upon both banks of the river. During the summer storms immense aggregations, mixed with roots and earth, become detached, and floating down-stream meet other blocks, with which they become entangled and gradually entwined, the

¹ Ismail Ayoub Pasha, although by birth a Circassian, was at this time the Egyptian Governor of Khartoum, and a close personal friend of Sir Samuel Baker of many years' standing.

roots of one block encircling those of others and eventually forming a fresh and ever-widening mass of vegetable matter. Before the Government got the control, these enormous concretions measured as much as a mile long and between 15 and 20 feet thick. Where they had lodged upon some obstruction and formed a dam across the river, they became rapidly converted by fresh arrivals into a block as much as 25 miles in length.

The plant, which is very ornamental in appearance and bears a large brown-coloured flower, emitting a faint and rather sickly odour, grows to a height of between 15 and 20 feet. The simultaneous movement of millions of these bending, palm-like, feathery plants in the breeze is very impressive, and the swish of the drooping leaves as they meet one another is soothing in the extreme. In considerably less quantities the sudd would form a pleasing part of the otherwise monotonous White Nile scenery; but no other epithet than that of an intolerable nuisance can be applied to it. For three days the steamers on the Khartoum-Rejaf route pass through sudd-lined banks, and one becomes very soon tired of the eternal green of the leaves, the pale brown of the flowers, and the insidious, permeating perfume which floats upon the heavy, sun-baked air. Only the hippopotami, crocodiles, and sundry aquatic birds seem to like the sudd, which otherwise seems to have little or no *raison d'être*.

At one time a brilliant scheme existed which had for its object the commercial exploitation of the papyrus plant in the form of both fuel and paper. If the Egyptians made excellent and enduring writing material from the plant—and we know that they did—why, it was asked, with modern machinery and the immense demand for paper, could not some enterprising individual turn to profitable account the millions and millions of plants wasting and rotting upon the banks of the White Nile?

But the papyrus of the White Nile is not quite the same thing as the papyrus—the paper-reed, *Cyperus Papyrus*—of Linnaeus. That particular plant, from which the ancient Egyptians drew the material for their scrolls, has long been extinct. It was not even indigenous to Egypt, but was

probably introduced from Abyssinia and Syria, while, according to Pliny, it was found as a native plant on the Niger and the Euphrates. The papyrus of the Sudan is of the same genus, but it is coarser in fibre and less handsome in appearance than the Cyperus of Egypt, known also as *p-apu*, and in Greek as *πάπυρος*.

The scheme above referred to took concrete shape in the early days of 1912. A group of promoters, "Sudan Industries, Limited," obtained from the Government a concession giving to them the exclusive right to cut and take "sudd" from an area of approximately 375,000 acres; moreover, the concession practically conferred a monopoly, inasmuch as the Company was given the exclusive right to manufacture solid fuel from the papyrus and *oom súf* plants, known as "sudd," until the end of the year 1922, subject to an extension at the expiration of that period.

The notion of utilising the troublesome vegetable growth commercially attracted the fancy of the public, and many prominent men looked upon it favourably.

The concession granted to the Sudd Fuel (Suddite) Company, Limited, extended over a width of 5 kilometres on either side of the Bahr-el-Gebel (the name given to the White Nile south of Lake No) for a distance of 150 kilometres; that is to say, it embraced an area of 150 kilometres by 10 kilometres = 1500 square kilometres or 937½ square miles. It has been estimated that the sudd region comprises an area of some 35,000 square miles, so that there would be room for several more companies were the inducements to take up concessions and work them sufficiently attractive. Judging from the experiences of the pioneer company, it seems very doubtful whether they are.

Owing to the length of the Company's property, the cutting of the sudd could be carried on over a wide frontage, a distinct advantage, since a sufficient number of tugs and barges could be stationed along the river-bank to receive the raw material. Hitherto Shilluk labour has been employed to cut the sudd, the work being done by hand. It was hoped to introduce some effective cutting machinery, when about one thousand men would be employed.

Labourers were to be recruited partly from among the local tribes and partly from among unemployed workers in Khartoum, Omdurman, and the Northern Sudan.

Although the original Suddite Company went into the hands of a Receiver in the month of August 1915, there is no reason to suppose that its operations will be definitely terminated or that the large amount of work already carried out will prove entirely useless.

CHAPTER XXXI

Agriculture (*continued*)—Cotton experimental farms—Tayiba—The Gezira Plain—Topographical features—Climate—The favourable soil: like that of India—Water taxes and cultivators—Quality of soil—Kamlun experimental station—Operations of the Sudan Plantations Syndicate—Agreement with the Government—Installation at Tayiba—The tenants—Grant of financial aid.

THE great Gezira Plain is that immense tract of land which lies between the White and Blue Niles south of Khartoum, and having an area of some five million acres. The word Gezira means "island," and although this vast plain is not a perfect island, it was for a long time believed to be so. The extreme flatness of the country is at once apparent to any one travelling from Khartoum through the plain; the mirages which one observes upon the horizon are only possible in exceedingly level stretches of land. The soil of the Gezira is composed of a very fine dust-like silt; by some people it is thought that this soil has been partly formed by the excretions of white ants over many thousands of years.

By glancing at a map which shows the contours of the country, it will be seen that the topographical features of the Gezira are exceedingly favourable for irrigation. The land falls gradually from the Blue towards the White Nile; but the slope is almost imperceptible to the eye. Expenditure for levelling the ground, which is one of the most serious items of practically all irrigated plantations, would be non-existent.

The climate of the Gezira around Khartoum is almost rainless, the occasional heavy storms being too uncertain to permit of the cultivation of rain-crops; but the rainfall increases steadily as one travels south. Regular cultivation

commences about 30 miles south of Khartoum, and reaches the maximum development near Wad Medani (Blue Nile Province). Very dry grass and bush become prominent features, passing to comparatively dense forest near Wad Medani, where the area cultivation in rain-crops is considerable, the population most dense, and the villages more numerous.

In one of his many reports upon the Nile and irrigation projects in the Sudan, Sir William Garstin, the eminent irrigation authority, has pointed out that "the true agricultural future of the tracts adjoining the Blue Nile does not lie in the direction of summer irrigation, but rather in the direction of those crops which can be ripened during the winter months. The soil of the Gezira, and of a large portion of the lands lying to the east of the River Nile, much resembles that of those parts of India which produce the finest wheat. The climate of the two countries is very similar, but in the Sudan one important agent is wanting, viz. a winter rainfall. Without this, winter crops cannot be raised, except in comparatively small areas adjacent to the river. Were this provided, the province of Sennar and the southern portion of the province of Khartoum might become one of the finest wheat-producing areas in the world. The soil consists, almost everywhere, of rich alluvial deposit, and the climate, in winter, seems specially suited to the production of cereals. Under the hot sun of these latitudes wheat would ripen early and be harvested in March."

The return which may be expected from the working of such a scheme as that already described is perhaps more difficult to estimate than the construction of the work, "but," says a Government report upon the subject, "it is worth noting that in places where the cultivators of the Sudan are familiar with irrigation they have frequently expressed their willingness to pay one-third of any crops raised on their lands for the supply of water (from a pumping station or otherwise) necessary to mature these crops, and the realisation of any such land in the form of taxation and water-rate should give a handsome return on

the capital invested, apart from the indirect benefit to the country as a whole."

The best evidence of the quality of the soil is the fact that under present conditions, when rain is at all normal, good crops are raised, but in order to prove the fertility of the soil and the adaptability of the Sudanese to become good agriculturists, the Government decided first to start a test farm at Tayiba. An experimental station had previously existed on the Gezira at Kamlin, but unfortunately the land was not representative of the great plain, as it was situated on the river-bank and not upon the main plateau, so that it proved of little use as a test of the capabilities of the soil.

Work upon the new test farm at Tayiba was commenced in March 1910, but it was not until the following year that the station was put into going order. In the meantime the Government had been approached by the Sudan Plantations Syndicate, Limited, with a view to the latter taking over the management of the farm, and an agreement was entered into under which the Government consented to rent the land necessary and pay the entire cost of installation, while the Syndicate were appointed as managers, it being distinctly stated that the farm must not be worked as an experimental station alone, but run mainly as a test station upon the same lines as those on which the great Gezira project would ultimately be worked—that is to say, the land must be given out to natives. Each native has about 30 acres, which he holds upon a yearly tenancy; each tenant has upon his holding his hut, which is generally constructed of shrubs, reeds, and palm leaves. One-tenth part of the total area has to be reserved by the Syndicate for scientific experiments, which they undertake to carry out on behalf of the Government.

The agreement between the Sudan Government and the Sudan Plantations Syndicate, Limited, was for four years from 1911. At the end of two years, however, the experiments were found so successful that the Government definitely decided to carry out the proposed larger scheme, and terminated the arrangement with the Syndicate, intending

to take over the Tayiba farm and themselves work it. Finding difficulty in putting their ideas into force, the Government again installed the Syndicate as their managers upon a new agreement, the terms of which will still be applicable to the great Gezira scheme when the water arrives by free flow.

As the level of the Nile from the surface of the land varies from 52 feet at high water to 71 feet at low water, it is natural that the pumping should prove an expensive item, and it was understood from the commencement that this test station could not become a remunerative undertaking. The installation, which cost about £18,000, consists of three tandem compound engines with superheated steam locomobiles; each has an indicated horse-power of 200, and makes from 180 to 186 revolutions per minute. The pumps have an output of 27·5 cubic metres per minute, or ·46 of a cubic metre per second; the number of revolutions made per minute is 750. The fuel used is briquettes; the consumption amounts to about 1½ tons for twelve hours' run. The water horse-power for a 71-foot lift is 123.

The land is ploughed twice and ridged during the months of May and June. About the second week in July sowing begins. The rotations adopted are cotton, wheat, dura (sorghum), and leguminous crops (lubia, beans, etc.), ten feddans of each crop being planted. Irrigation commences about the middle of July, while the land is weeded about a fortnight after the first watering takes place.

The implements in use at Tayiba consist principally of the native plough and the American ridging plough, the latter being specially adaptable to this pliable soil. For hoeing the natives prefer to use the patriarchal hand-hoe, but sometimes the operation is performed by cattle-drawn implements called "cultivators."

All tenants are under yearly agreements; the rentals are payable on or before the 15th of March in each year, while agreements are determinable on the first day of each recurring April. The land is let upon the security of the tenant's crops and animals, and the tenant agrees neither to sell nor to tax-move any such crops or animals without the written consent

of the Company, unless the latter should have previously received the rent as well as all advances and other sums that may be due to it. The Company's rights are considered a first charge upon the crops and animals, and in the event of a tenant becoming insolvent or making arrangements with his creditors, or if any legal execution is threatened against any of his property, the Company may seize the crops and animals.

Tenants are, in all matters, compelled to obey the reasonable orders of the Company's officials relating to the cultivation, irrigation, and harvesting of their crops. Should a tenant become careless in the cultivation of his land, the Company have the right to take any such steps as they may consider proper for the safeguarding of the crops, and any expenses incurred thereby are charged against the tenant and recovered from the proceeds of his crops without reference to him. The Company financially assist any tenant who, in their opinion, is in need of advances of money or kind to enable him to cultivate and harvest his crops, but in the event of a tenant becoming careless or using such advances for other purposes, financial aid is discontinued and prompt measures are taken to safeguard the crops.

CHAPTER XXXII

Irrigation—Importance of the Nile—Sir William Garstin's projects—Blue Nile scheme—Irrigation Department—The Tokar scheme—Mr. P. M. Tottenham—Mr. C. E. Dupuis—Engineering features—Water control—Probable cost—Government energies—Irrigation difficulties—Considerations of moment—Sudan Irrigation Service—The Gezira scheme—Sennar Dam—Cultivating 3,000,000 feddans—Present water-supply—Materials for construction—Anticipated profits—Lancashire's interests—White Nile project—Cost of dam—Egypt's concern—Sudan's advantages—Nile Delta Canal—Nile tributary waters—Sir Charles Watson's opinion—Sir William Garstin's proposals—Irrigation rather than transportation.

It is not difficult to understand, nor yet to excuse, the deep reverence which the Egyptians have paid to the Nile from the very earliest period, for in this magnificent if eccentric river they have always recognised the source of their health, their happiness, and their natural wealth. No Roman ever worshipped the Tiber as the Egyptian adores the Nile—"Father of the Gods," as it was called—a god whose might and majesty were so great that he could not be sculptured in stone, seen in pictures, or offered oblations or service in person—even one who "could not be brought forth from his hiding-place." The latter divine attribute, believed in by the river's ancient idolaters, was disproved when Bruce discovered that the Blue Nile sprang from Lake Tana. Speke, Grant, and Baker traced the White Nile to Victoria and Albert Nyanzas, whilst Stanley discovered its southernmost source at the springs of Suna, and also revealed the fabled "Mountains of the Moon," whose melting snows have fed the Nile through all the ages.

If the Nile meant, and means still, so much to Egypt, how much more is its beneficent influence felt in the Sudan? The whole hope of this immense country of about one million

square miles in area is centred in the promise of its rivers, including the Rahad, the Dindar, the Sobat, and the Atbara; but it is the White and the Blue Nile *surtout* which supplies the life-blood of the Sudan, and to conserve the waters of this unrivalled artery is the principal aim and object of the Administration.

That eminent irrigation authority Sir William Garstin—perhaps the greatest that the world has known—has studied the Sudan, as he had studied Egypt, for many years. During consecutive seasons he visited the White Nile, and he has recorded his conclusions in a series of reports which will rank as notable examples of scientific literature. According to this accepted expert, it is possible so to control and increase the flow of the Upper Nile during the periods of winter, spring, and early summer, that not alone will Egypt receive her full requirements (say five milliards of cubic metres) of water, but a sufficiency for the entire Nile valley north of Khartoum can be assured. The immense benefits which this supply would mean to the Sudan are explained in the following description of the works in hand, written by me for *The Times* (to the courtesy of which journal I would express my indebtedness for the particulars reproduced):

“The irrigation project may be divided into three separate yet connected schemes, the first of which is that known as the Blue Nile scheme. This has been under consideration in some form or other for nearly twenty years, that is to say, as long as the Sudan has been under British occupation. As far back as 1905 something like a preliminary project was prepared and submitted by the Egyptian Irrigation Department; even at that early stage it was considered that the project was perfectly feasible. But many knotty points had to be considered, and there existed no exact precedent upon which to base plans and operations. The undertaking has for its object the irrigation of the immense plain of Gezira, that part of the Anglo-Egyptian country lying between the Blue and the White Niles, south of Khartoum. The means adopted include the construction of a dam on the Blue Nile and a main canal through the

Gezira. The plans and discussions of many years found eventual fruition in 1913, when definite plans were put forward and referred by the Sudan Government to the Public Works Ministry in Cairo for consideration and advice.

"The plans, which are very elaborate and complete, show in minute detail the two main features of the Blue Nile project—viz. the dam at Makwar, a few miles south of Sennar ; and the canal, taking off from above the dam for the irrigation of 300,000 feddâns (one feddân is, as nearly as possible, equal to one acre) in the Gezira. The original scheme of development was a conception of Sir William Garstin's when head of the irrigation system of the Nile. Sir William put detailed consideration of the project in the hands of Mr. C. E. Dupuis, then Inspector-General of Irrigation for the Sudan. Mr. Dupuis was assisted and succeeded by Mr. P. M. Tottenham, who matured the first set of plans put forward for the dam, and investigated the capabilities of the water-supply in the river in relation with the area possible to lay under specific crops.

"The late Lord Kitchener evinced great interest in these irrigation projects, which, in his belief, were destined to give new industrial life to the Sudan, and create permanent economic prosperity. So greatly was the former Governor-General of the Sudan concerned with these undertakings that he found time, among his multifarious duties, to visit personally the site of the proposed dam at Makwar in order to satisfy himself that the site selected offered all the advantages claimed for it. In July 1913, acting upon instructions from Lord Kitchener, Sir Murdoch MacDonald, Under-Secretary of State for Public Works in Egypt, proceeded in company with Sir William E. Garstin, Sir Arthur L. Webb, late Advisers to the Public Works Ministry of the Egyptian Government, and Mr. H. H. M'Clure, one of the directors of the late firm of Messrs. Aird & Co., to meet in London for the purpose of examining the plans and giving an opinion regarding them.

"An important meeting of engineers in London during the year 1913 was followed, a few months later, by the visit of Sir Murdoch MacDonald, Sir Arthur Webb, and Mr. M'Clure

to the Sudan for the purpose of further examining the proposed site of the dam, and after a careful survey of the many difficulties which presented themselves—such as that of space sufficient for the construction of the necessary coffer-dams, material required for the same, the limited time existing for actual work, borings, and other constructional problems—they came to the definite conclusion that the deep eastern channel should be laid dry by due and sufficient preparations previously made. This conclusion was, in due course, conveyed to Lord Kitchener, as then British Consul-General for Egypt and the Sudan, and to Sir F. Reginald Wingate, then Governor-General of the Sudan, both of whom had been present at the examination of the Makwar site. The approval of these high authorities having been obtained, a further set of plans for the dam, upon their instructions, was prepared, and estimates were submitted by Sir Murdoch MacDonald, who considered that the constructional cost would come out at £E1,420,000. To this total had to be added the cost of a canal to supply water to 120,000 feddâns, estimated at £580,000, making a grand total of £2,000,000 for the scheme as it then stood. Subsequently a Bill was presented to and passed by the House of Commons, under the auspices of the British Treasury, designed to guarantee a sum of £E2,000,000 for the irrigation works, being part of a general Sudan Loan Bill for £3,000,000, at an interest of $3\frac{1}{2}$ per cent.

“To the Sudan the issue of this loan was not only of considerable moment from a purely reproductive point of view, but it served to stamp the country as having achieved a policy which brought at once an apparently hopeless region from a state of barbarism to the verge of settled prosperity. It was a recognition in the highest and most useful quarters that the country had entered upon a sound and continuous path of progress, a fact which was further exemplified by its having at this period commenced to dispense with any further financial assistance from its parent Egypt.

“Then, for the next three or four years, little or nothing was done, owing to the intervention of the European war and the impossibility of obtaining either the necessary

supplies of material or their shipment. But the engineers were not idle. During these years of enforced inactivity Sir Murdoch MacDonald has been deeply engaged in investigating the questions of discharges, levels, sluice waterways, materials, and many other engineering problems, which, owing to insufficient data available at the time of the original plans and estimates, had necessitated the preparation of revised plans and estimates, which may now be regarded as final. These final plans show that the Sennar Dam, as was anticipated from the commencement, is a work of prime importance and magnitude, and can well be compared with the Assuan Dam or other similar works hitherto constructed in Egypt. The dam has to withstand a pressure of 16 metres of water and to pass a discharge of 15,000 cubic metres per second in a river whose serrated gauge diagram shows that it is subject to great and sudden fluctuations.

"Apart altogether from the constructional difficulties involved in dealing with the deep eastern channel of the Blue Nile River, many additional engineering problems have had to be considered, among which may be included the following principal problems :—(1) Nature of the foundations for the dam ; (2) maximum flood levels and discharges ; (3) waterway in dam sluices and spill-ways ; (4) profiles of different portions of the dam and their stability ; (5) levels of sills of sluices and spill-ways ; (6) flanks of dam ; and (7) minimum discharge of the Blue Nile. Each one of the above points has been taken separately, thoroughly examined, and exhaustively discussed between Sir Murdoch MacDonald, their originator, Sir Arthur L. Webb, and Sir William E. Garstin. The two last-named eminent engineers placed upon record their conviction that—'After examination of the projects put forward, we find them entirely in accordance with our views.'

"The estimate of the cost of the Sennar dam had been revised to £1,750,000, but in view of the rise in the price of materials and the increased cost of labour further revision is under consideration to meet the actual circumstances of the moment. The area of land to be dealt with has also been increased from 120,000 to 300,000 feddâns, in order to

make the scheme a substantial commercial undertaking. All that can be definitely stated now is that from experience of similar works, previously constructed, the rates quoted were considered reasonable. In any event it may be said that Sir Murdoch MacDonald has had great knowledge of this class of estimate, and his experience has not been confined wholly to Egypt, although his principal public services have been rendered in that country, including the protective works and the heightening of the Assuan dam and the construction of the Isna Barrage. There are other considerations which have also to be taken into account, although these do not actually concern the engineering part of the Blue Nile project. Three will call for some detailed remarks, viz. :—(1) The scope of the present scheme ; (2) the summer supply of water to Egypt ; (3) cotton cultivation, which has for Egypt and the Sudan so great an importance in the economic development of those countries.

“ The dam, or weir, which ranks, perhaps, as the principal part of what is known as the ‘ Blue Nile project,’ will provide water for the cultivation of that huge tract of land extending from Khartoum to the rainfall region, and lying between the White and the Blue Niles. In shape and extent it is remarkably like an inverted Egyptian ‘ delta,’ and also similar to the irrigation of the delta is the contemplated irrigation by which the land will be brought under cotton cultivation. Although separated by more than 1000 miles, the two regions will be differentiated by exactly opposite seasons of production. At present, and in its natural condition, the Gezira is watered only by a rare and irregular rainfall. Such rain as is met with comes only in the early autumn, and the very poor and nomadic population use this fitful supply to bring a mere fraction of the area under grain cultivation. It was believed at first that grain alone

be grown in this district ; but one of the most important results of nearly eight years’ experiments has been to prove that the region—or at any rate a large portion of it—is admirably adapted to the cultivation of the far more valuable cotton plant.

“ The site of the dam at Sennar, selected with great care,

and, as already mentioned, finally approved by the late Lord Kitchener and the former Governor-General of the Sudan, Sir F. Reginald Wingate, upon the occasion of their official visit in January of 1914, has been well chosen. The surrounding country is very suitable for the construction of the necessary irrigation works. It is a wide plain, sloping gently north and west from the Blue to the White Nile; the weir on the Blue Nile will conveniently raise the river to a sufficient starting level, and a system of canals will then conduct the water by natural gradients over the area to be irrigated. To supply the canals a head of water of 16 metres will be required, and for the dam to be of sufficient strength to support the strain of such a head it is essential that it should be founded upon rock. The Sennar site answers this requirement in all respects. It is situated 180 miles from Khartoum, and is the nearest suitable spot available. At this distance south of Khartoum the limits of Northern Africa are reached, and 'the first appearance of the equatorial forest marks the passage from the waterless conditions of the great deserts to the region of abundant rain. But between Khartoum and the limits of sufficient rainfall we come to the intermediate tract of country known as the Gezira, or 'island.'

"Of the total area of this part of the Gezira, 3,000,000 feddâns may be regarded as capable of cultivation, and it is assumed that the experience gained from the existing farms warrants the confidence that cotton can be continuously grown, but until the remainder of the plain has also been tested by experimental stations it would be unsafe to say that it can produce cotton equally well. One experimental pumping-station, established at Wad Medani, on the Blue Nile, and watering 2000 feddâns, has proved that cotton can be cultivated successfully as a winter crop, in contradistinction to its summer growth in Egypt. It is hardly necessary to point out the extreme importance that this fact bears upon the future economic development of both Egypt and the Sudan. The difference in the time of growth spells all the distinction between success and failure, for if both crops grew and took water at the same time in the

Sudan and Egypt, difficulty would arise in the distribution of the summer discharge of the Nile, which in some years, even at present, does not suffice for Egypt alone.

"Of the 3,000,000 feddâns available for cultivation an area of 300,000 feddâns has been chosen for immediate treatment. When the canal system has been extended the weir can ultimately serve the whole area of 3,000,000 feddâns, its only limitation being that until storage works are constructed higher up the stream the amount of water it will be able to divert into the canal head during the winter and spring months will depend upon the amount of water passing down the river at the time. The main canal, in connection with which a considerable part of the initial digging works has been finished, will lead to a point at which the water will be delivered to as large an area as it will be an attractive commercial proposition to cultivate, let us say some 300,000 feddâns, of which one part may lie fallow every year and one be put under green crop, leaving not less than 100,000 feddâns for cotton.

"Experiments have shown that cotton grows well as a winter crop in the Sudan, which means that winter water only is required for its fertilisation, and it is therefore possible to guarantee a sufficient supply without detriment to the requirements of Egypt. The greatest discharge in the river estimated as necessary for the development as proposed is less than the lowest natural discharge recorded in the river at the critical period, and it will be possible to continue the required supply artificially even should the river fail altogether.

"With a stream like the Blue Nile, whose torrential character causes extreme variations of level in the course of each year, absolute failure may—for the sake of argument—be assumed as a contingency, although it has never been known to occur. But supposing that it did occur, and that it endured for a period of, say, two months, still it would be quite possible to counteract the effects. The design of the Blue Nile weir is such that it takes all such facts into consideration, and will provide a height of building capable of dealing with the highest conceivable flood, and, while

storage is not the object of the undertaking, it will be possible, long before the actual date of such a failure as is predicated, to impound, by the aid of this high structure, sufficient water to meet fully the requirements not only of the 300,000 feddâns mentioned as necessary to a commercial enterprise, but of considerably more, without any assistance whatever from the river during these two months. Thus, while total failure of the Blue Nile is almost outside the bounds of possibility, it is provided against should it ever happen. The increase in the area cultivable with the additional guarantee of this incidental storage may be taken as bringing the total area up to at least 660,000 feddâns in the lowest year yet recorded.

"Next in importance may be cited what is known as the White Nile project, which deals particularly with the question of the storage of summer water. Unlike the work in progress on the Blue Nile, the damming of the White Nile ranks as one of those undertakings which are destined to control the Upper Nile for the benefit of Egypt; as already indicated, the Blue Nile weir at Sennar will chiefly benefit the Sudan. Less progress has been made in connection with the White Nile enterprise on account of the increased engineering difficulties—none in any way insuperable—which have had to be encountered and overcome.

"Up to the end of 1915 the site of the dam had not been finally selected. During that year, however, boring experiments were carried on with the object of arriving at some decision. It was found that the worst deeps occurred in close association with the principal outcrops of rock, and finally a new line was chosen which avoided all outcrops in the river itself and gave very good results, the rock being reached at 9.95 metres in the deepest bore and at 1.26 metre in the shallowest. Altogether some 76 borings, to a total depth of 2530 feet, were made along six different lines at varying intervals of from 50 to 200 metres. Additionally, preparations were made for the proposed dam in other directions, and a considerable amount of work was carried out in the sudd region. With the clearance of the clinging weeds and widespread growths of the papyrus plant from

the main channels, and with the acquisition of more accurate data, the problems that centre in this region are regarded by engineers as of less immediate importance than they were formerly thought to possess."

The sudd region, as has been explained in an earlier part of this volume, is comprised in the immense area of swamp commencing soon after the junction of the Sobat River with the White Nile, and extending southwards for some 200 miles. These swamps seem to act as a huge natural reservoir. At one time, before the more accurate data of recent years were available, it appeared reasonable to suppose that the cutting of a canal along this region, or the training of one of the main river channels passing through it, would enable all the summer water to flow down which could possibly be required, and so relieve Egypt from dependence on the variable supply of different years.

More recent knowledge of the situation, however, demonstrates that irregularities in volume occur on the other side of the sudd to an even greater extent than on the side of it towards Egypt, and it results that if either of the two works above referred to—cutting a canal or training the river—were executed otherwise than as a supplementary undertaking to the other works of control, the only effect would be to reproduce on the down-stream side of the sudd similar irregularities to those that occur up-stream of it. Regulation of the river above the sudd region can, however, be secured by building a small dam at the exit from Lake Albert, which would have enormous capacity as a storage reservoir. Such a work, coupled, perhaps, with other lake works and assisted by complementary undertakings in the sudd region, and by the various works proposed in the earlier construction elsewhere, would serve to ensure sufficient water to meet the ultimate requirements of Egypt under the fullest cultivation.

Shortly, the White Nile project may be said to comprise the following arrangements:—Further protection is required against excessively high floods, and this it is proposed to obtain partly by heightening and strengthening the banks of the river in Egypt, partly by stopping a portion

of the flood wave in the Sudan. The water abstracted from the flood will be allowed to flow back into the river when the levels are lower and water runs short. The dam on the White Nile is the principal work proposed for the double purpose of reducing the flood and increasing the summer supply. More summer water is wanted, both to ensure the present area of cultivation against the all too frequent seasons of poor supply and to provide for further extension. This is required to satisfy an increasing population in continuation of extension provided in the past. It is also proposed to continue the conversion of the remaining basin lands to perennial irrigation either by building a barrage or by extending the right to pump water from the Nile, and it is intended to reclaim large areas of uncultivated land in Lower Egypt, partly as an accompaniment to the drainage of the Delta, a work commenced some years ago and now urgently demanding to be continued. There is no single project which will satisfy the ultimate demand for water when reclamation and development are complete. The White Nile's capacity for storage may suffice to meet demands for a number of years, and other works may be undertaken to supplement it, but eventually it will be necessary to regulate one or more of the Great Lakes.

Other preparatory work arranged by Mr. C. E. Dupuis and controlled by Mr. P. M. Tottenham has been done. A dredging fleet has been employed, and has effected a great deal of inexpensive work with good results. A dipper dredger has been carrying on the work of banking the Zérâf River between Cut No. 1 and Khôr Mabour, afterwards returning up-stream to strengthen the banking and improve the Gebel entrance to the cut. A grab dredger has been working upon the deepening and improvement of Baker's Channel for a considerable distance down-stream to the point where the channel quits the Gebel River. Upon one or two occasions the dredger has been prevented from proceeding farther by the exceptionally low level of the water, but when these interruptions occurred the craft was employed to convey coal and stores from Khartoum to Malakal, in

the province of the Upper Nile and the centre of an important telegraph system and headquarters of the province.

Among other works of the White Nile Division of the Irrigation Service has been the complete survey of the Ghazal River from Lake No to Ardeiba, providing much information which hereafter will prove of the very greatest value.

In regard to the construction of the reservoir dam on the White Nile, several proposals have been put forward, among other suggestions having been one for the making of a channel between the Blue and White Niles. A practical solution of the problem has now been obtained and a scheme produced which, it is confidently stated by no less authorities than Sir William E. Garstin and Sir Arthur L. Webb, affords an effective combination of irrigation and protection works. According to Sir Murdoch MacDonald, it is possible to carry out a comprehensive scheme which will not only provide Egypt with a sufficient supply of summer water for many decades, but will also afford a very important—if not final—insurance against the effects of excessive floods. The scheme comprises the following works :—(1) A reservoir dam at Gebel-el-Auli capable of supplying an adequate summer supply to Egypt for many years, and raised to a sufficient height to be capable of impounding when necessary excessive flood-water to be passed into the main Nile, the water being stored in the new reservoir for a short period and the excess over summer requirements being allowed to flow out when the flood has somewhat decreased in volume, thus substantially reducing the crest of the flood wave in Egypt. (2) A channel from the Blue Nile from above the Sennar dam for the conveyance of excessive flood-water to the reservoir in the White Nile above the Gebel-el-Auli dam.

This project is complete in itself and successfully solves the problem of irrigation for a considerable future period, while at the same time it contributes largely towards a permanent reduction in flood levels. The scheme does not interfere with the construction of any works which may in the future be executed higher up the Blue Nile for the

irrigation of the Sudan or Egypt ; in fact, the construction of such works would not only be supplementary to but would enhance the value of and also complete the entire project.

The construction of the Gebel-el-Auli dam is regarded as of immediate importance, whereas that of the cross channel between the two Niles can be postponed until the construction of the Blue Nile dam at Sennar makes it possible to excavate by dredging. Plans have been prepared for the construction of the Gebel-el-Auli dam, the designs providing in one combined work for the storage of summer water and the protection of Egypt against high flood.

Early in 1914 the late Lord Kitchener requested Sir Murdoch MacDonald, Sir Arthur L. Webb, and Mr. M'Clure to accompany him on a visit to Gebel-el-Auli for the purpose of examining the site for the proposed White Nile dam works, which were studied and brought to a very forward stage by Mr. P. M. Tottenham, who saw the advantage which the summer reservoir scheme by itself would have for flood control. Boring operations had been and were still in progress. There was, however, sufficient information available to afford reasonable supposition that sandstone rock would be found right across the valley of the river. Further borings were then ordered to be taken, and the site which has now been finally selected is that which, upon preliminary investigation, had seemed most promising. Upon this site there is a sandstone rock foundation throughout which is capable of meeting all engineering requirements, and it is stated that the actual work of construction upon this foundation will present no special difficulty.

The design of the White Nile dam is described as being comparatively simple. The maximum head is 10 metres, and no complications occur regarding waterway or sluices, or levels. The designs have been pronounced by those most competent to judge as thoroughly sound and meeting all engineering conditions. Calculations based on the levels prove that the reservoir can absorb such a large volume of excessive flood-water as to cause a very effective reduction

in the levels of high floods in Egypt over a considerable period. In fact, if the cross channel between the two Niles were sufficiently large the reservoir, by itself, would suffice to produce a flood level which is considered desirable for the safety of Egypt. It is not, however, deemed either advisable or necessary to have so large a cross channel, since future works elsewhere will absorb about one-half of the excessive flood-water. In any case it has been confidently stated that the reservoir capacity is ample. It may also be pointed out that in years of good, or even normal, flood this White Nile reservoir would provide a sufficient storage of water for the whole of the summer requirements of Egypt: while in years of very low flood the quantity is limited and insufficient because, in the absence of adequate regulating works in the river, it is impossible to withdraw too much flood-water without causing detriment to the basin irrigation in the Girga and South Asyût provinces of Egypt. The remedy for this is the construction of a barrage somewhere in the neighbourhood of Nag Hamadi. The results of the very low flood of 1913 showed the great necessity for such a work.

The construction of the barrage, and the work which will eventually be executed higher up the Blue Nile, will in all probability afford all the water-supply that Egypt will ever need. Should still more summer water be required, however, at some distant period, then works will have to be undertaken on the upper reaches of the White Nile and its lakes.

So far as the cost of the White Nile dam works is in question, final figures are not altogether obtainable. The preliminary estimate for the construction of the Gebel-el-Auli dam and the storage work only was put at £E600,000. Upon engineering grounds, however, it was shown that the cost could not possibly be less than £E1,250,000. The actual estimate, based on prepared plans, is now placed at £E1,500,000. To this sum has to be added £200,000 for compensation for disturbance to the inhabitants cultivating along the low stage Nile banks—a payment almost equally necessitated by all the proposals. The total will provide

the combined storage and flood protection works. The extra cost, therefore, of constructing, from the commencement, the Gebel-el-Auli dam, so as to conform with the general scheme, is £E250,000. As may well be understood, in a work of this magnitude it is impossible to say that even the estimate of £E1,500,000 is quite final, especially in view of the great increase in labour and other costs in recent years. At the same time, it is not anticipated that any special difficulties will present themselves in construction, since the foundations can reasonably be considered sound.

Some eight years ago Sir Murdoch MacDonald submitted to the late Lord Kitchener a general scheme for the complete drainage and irrigation of Lower Egypt under which the country was to be divided into zones formed by the natural boundaries marked out by the ridges of the existing or more prominent ancient mouths of the Nile. Two of these areas were considered at the time, and a certain amount of initial work has been undertaken in connection with them. So far as the drainage projects are concerned, the general scheme is for the other divisions practically an amplification, with modifications to meet each special case, of the two projects known as the Central Gharbia and the Western Beheira, which were designed for the drainage of the central wedge of the province of Gharbia and for the western and south-western tracts of Western Beheira, drainage projects having catchment areas of about 500,000 feddâns each. Both projects were originally put forward in 1912, and at the time were approved by the Egyptian Government. The principles adopted in these two projects had, however, given rise to considerable discussion and no small amount of hostile criticism; but the fact remains that they have been generally accepted as the only practicable solution of the drainage problem.

Before proceeding to explain the reason why these projects have now, notwithstanding their hostile reception in quarters referred to, been finally adopted by the Egyptian Government, it may be desirable to say something regarding the character of the country in which their vast operations are being carried out. A glance at the map of Egypt will

show that the lower part is in the shape of a triangle, with the city of Cairo situated at the apex 70 feet above sea level. At the extreme western base is the port of Alexandria, and at the extreme eastern base that of Port Said, both towns being almost at sea level. Along the northern boundary of Egypt and adjoining the Mediterranean Sea there are four salt lakes into which, at present, nearly all the drainage of Lower Egypt flows. Of these bodies of water, Lake Marioût is the most westerly. Its bed is some 12 feet or 14 feet below sea level, and its water level is maintained by means of powerful pumps at between 9 feet and 10 feet below sea level. Next is Lake Edkou, a shallow piece of water connected with the sea, and having its bed only slightly lower than sea level. Between Lake Edkou and Lake Borollos is the Rosetta branch of the Nile, after which come the Damietta branch and the large lake of Menzaleh connecting Damietta and Port Said, and utilised as a canal by the Menzaleh Canal and Navigation Company. All three lakes—Edkou, Borollos, and Menzaleh—are connected with the sea, their beds being only a few feet below sea level. Many years ago the Egyptian Government undertook the task of pumping Lake Marioût to its present low level, with the result that all land in the Beheira province which is drained into the lake, having a level down to 4 feet below the sea, can be put into good cultivation.

In this Beheira province of Lower Egypt (which is traversed by the Alexandria-Cairo Railway) cotton is very extensively cultivated. Of the total area, amounting to 1735 sq. miles, more than one-half (or, say, 950 sq. miles) is under cultivation.

Before the construction of the Assuan dam the drainage system in the Egyptian delta had reached the limit of its capacity, the increased water-supply obtained from the dam and the subsequent heightening necessitating immediate measures being taken to improve the existing condition. All sorts of schemes were proposed and considered, but in his "Irrigation Report of 1908" Sir Arthur L. Webb, the then Adviser to the Public Works Department and Under-Secretary for Irrigation, stated definitely that "the only

solution would be the erection of large pumping installations on the borders of the lakes in order to reduce the surface levels in the drains."

It may be said in this connection that during the last ten years or more a large area of land lying lower than 5 feet above sea level has been drained by the small landed proprietors with pumps into the Government drains with good results, this class of reclamation having steadily increased in the northern delta year by year until it has become established in popularity with all classes of landowners. During the tenure of office by the late Lord Kitchener as British Agent in Egypt, a good deal of attention was given to drainage projects, and the Public Works Department was commissioned by him in 1911 to prepare and submit the two schemes—the Beheira and the Gharbia projects—which were a combination of free-flow drainage in the southern regions and a pumping installation for the northern. In 1911, however, the Adviser to the Public Works Department, likewise acting upon instructions from Lord Kitchener, invited Sir William E. Garstin and Sir Arthur L. Webb to examine and report upon these schemes. As already mentioned, a great deal of opposition had been raised to their acceptance, hostility being manifested to their adoption both inside and outside the Public Works Department, especially with regard to the proposed pumping installations. Of course, this is an expensive and sometimes difficult matter to arrange, as to be truly effective neighbouring proprietors should join in the scheme, otherwise a proprietor may be pumping water for the benefit of his fellows.

After very careful consideration, the final result of the examination was a recommendation that the combined system should be abandoned and the whole of the drainage dealt with at the pumping installations, a conclusion in which Sir Murdoch MacDonald readily and willingly concurred. Many other points were considered in regard to this valuable scheme destined to carry out a comprehensive drainage system in the two provinces mentioned, the main result aimed at being the lowering of the water in the drains to those portions of the Delta to a depth of from

1½ to 2 metres below the surface of the soil. Elaborate experiments in the State Domains Administration showed that if this result could be achieved the productive yield per feddân in many parts would probably be doubled.

The undertaking of this vast project was not resolved upon without justification. That drainage of the nature proposed would have the beneficial result of greatly increasing the yield of all crops, but more particularly cotton, had been amply proved by what had been done by land reclamation companies and the State Domains Administration, on whose lands the deepening of drains and lower water level produced by free flow or pumping machinery had resulted in wonderful increase in productivity of the soil. For some years previously minor works of partially deepening individual drains in these areas had been taken in hand, but it was recognised that if real improvement was to be made much larger areas would have to be dealt with. For this purpose the Delta was divided into the natural divisions formed by the two branches of the Nile and the main deltaic canals. In Western Beheira the area dealt with covers 480,000 feddâns, throughout which the Government drains are being deepened so that the level of water in them will be lowered to not less than 1½ metre below the surface of the soil. The new pumping installation required to deal with the greatly increased volume of drainage water which may be expected when the land is properly drained and cultivated will lift the water 6 metres to sea level. Lake Marioût (sometimes spelt Mareôtis and at others Mariût or Mareia), though its surface was kept by pumping 3 metres lower than the sea, still covers an area of 55,000 feddâns. When the new scheme is in full operation all this land will be laid bare and provided with adequate drainage, and, after irrigation water is given it, it will be made available for reclamation. -

So far as the cost of these drainage improvements has been determined upon, it has been estimated that the schemes will involve an outlay of £1,390,000 to improve the 480,000 feddâns, or, say, £2·9 per feddân. In the case of the Central Gharbia area the drains will be similarly deepened

as in Western Beheira, and a pumping station will be erected at the point of intersection of the Bahr Tira and drain No. 4 near Baltim, where, in the original scheme, all the drainage water from the area of 480,000 feddâns proposed to be dealt with was to be lifted $2\frac{1}{2}$ metres and discharged into Lake Borollos, whence it was to have free access to the sea. The estimated cost of this project is £E1,192,000, or £E2.5 per feddân. It was hoped that the completion of both of these projects would be effected in four years from the middle of 1912, but, as we know, the intervention of the war seriously interfered with this as with other schemes.

From January 1912 to August 1914 steady progress had been made with the works in Central Gharbia; but afterwards, owing to hostilities in Europe, only those works were continued which were deemed essential to avoid serious financial loss and to enable advantage to be taken of the works already executed. In the districts treated an appreciable improvement in the drainage levels has already been noted, and pending the erection of the Baltim pumping installation it was proposed to increase this advantage by diverting to the sea direct the whole of the existing drainage at present flowing into Lake Borollos. The channel to the sea through which this diversion is being effected will ultimately form a discharge channel from the pumps. Until they are erected the drainage must still await the fuller benefit of the completed undertaking, but meanwhile free flow to the sea instead of into Lake Borollos is at least relieving it of the heading-up produced by the action of the constant north-westerly winds upon the shallow waters of the lake.

The provisional results already obtained have proved both important and convincing. In Gharbia the general result of the work to date is that by flattening the water slope of the main drains and discharging direct into the sea, instead of into Lake Borollos, the drainage levels have been lowered by upwards of one metre in the main central zone served by the new branch drains, with proportionately deeper drainage on the main channels farther south; while, as far north as Salahib, land that was previously flooded for the greater part of the year has now

drainage of from half to one metre. A number of private drainage pumping installations have stopped working because they are no longer required, and considerable areas of new lands have been rendered cultivable and are being put under crop by the fellaheen, although figures of the increased area under cultivation are not yet available.

Until the main pumping plant is working, there are 200,000 feddâns in the north of the area comprised in the project where no extensive reclamation is possible. Of the remaining 300,000 feddâns, an intermediate area of 100,000 feddâns is now being served by new branch drains with inlets complete, and bridged where necessary ; the 200,000 feddâns of higher land in the south are benefiting by lower levels in the two commanding drains. The general closure of canals for a month in the winter reduces the discharge from this area to practically nothing in January, but in October and November the effect of the flood is felt, and the discharge is as great as 4,000,000 cubic metres a day for the area at present served.

The quantities dredged in Central Gharbia during the year 1915-16 were 2,337,000 cubic metres, making 7,020,000 cubic metres since the beginning of the work in 1912, the quantities excavated by hand in the same period being respectively 150,000 and 3,650,000 cubic metres. The miscellaneous work undertaken includes bridge-building, the laying of inlet pipes, the erection of gauges, etc. To the end of 1916, after which very little more work was done than what had been found necessary to consolidate and turn to the best advantage the work already accomplished, there had been erected 102 bridges, built in steel and masonry, while gauges had been erected on all the main drains. An iron irrigation syphon, 18 metres long, has been laid under the main discharge channel, north of Khasha, to serve lands cut off from the Tira Canal. The Khasha syphon is furnished with regulating gates and flap-doors to prevent backward flow silting from Lake Borollos. Over 100 kilometres of main drains can now be navigated, and have connected the sea with the main navigable canals and both the State and the Delta Railways. The work carried on has been

greatly facilitated by assistance derived from the new demarcation office of the Survey Department, both plans and records now being far more reliable and accessible than has hitherto been the case.

In the Western Beheira the war was responsible for the same interruption of progress, but here, also, has been afforded the same strong evidence of provisional improvement. Up to the end of 1915, £E450,000 had been expended on this project since the commencement of work in 1912. This sum represents about one-third of the total estimated cost, and had it not been for the interruption of the war the year's work would have left the scheme complete and in working order for a large proportion of the total area completed. As for the area which would still have been left unfinished, inasmuch as drainage is to be introduced there at the same time as irrigation, the enforced delay has meant only an advantage not yet gained, and not any actual loss incurred. Very different, however, has been the case with the area already treated, for there delay has meant a certain amount of deterioration. In many cases smaller drains that have been excavated by handwork to their final level flow into larger drains that have not yet been dredged to their full section. The present velocity of flow in these smaller drains is thus less than was intended, and, in consequence, they would silt up to an extent dependent on the length of time this condition of things continues. In the main drains some dredging has been continued, but, again from reasons of economy, the work has only been carried out to the level of the branch drains pouring into them. Their required width of section has already been obtained, and pending their completion to their desired depth they necessarily remain wide, shallow, sluggish, and, like the smaller drains, liable to silt up.

During 1915-1916 the quantities dredged in the Western Beheira were 308,000 cubic metres, making 1,995,000 cubic metres since the project was started in 1912. The quantities of handwork for the same period were 52,700 and 475,000 cubic metres respectively. As in the Central Gharbia, the year's dredging was carried only to the levels necessary for

drainage by free flow. The completion of dredging on these lines in the Shereshra and Nubaria drains, and in the upper reaches of the 'Omun drain, has reduced flood level and proportionately improved the drainage of the land served, though the lower reaches of all these drains must, until further pumping begins, be affected by the level at which Lake Marioût is now maintained.

It is necessary to emphasise that the two great projects above described for the reclamation and drainage of Lower Egypt, as well as for its irrigation, provide both these necessary requirements, and in considering the schemes it has been found impossible to separate the two problems. The execution of the drainage and irrigation works must proceed *pari passu*; in fact, if any preference is to be made, the irrigation supply should have precedence. The problem of the present and future supply of raw cotton had long been seriously considered by the British Government, and since the termination of the war the subject has loomed up with greater importance than ever. These projects will afford the Egyptian Government an altogether unique opportunity of assisting the British Government in a way which is not only practicable, but also profitable to both Governments.

It only remains to be added that the project for the storage of the Blue and White Nile waters in the Sudan was drafted by the Egyptian irrigation authorities, but as it had been made the subject of a very considerable controversy, the Egyptian Government resolved to confirm its judgment as to the soundness of the scheme by the appointment of a Commission consisting of three specialists who had had no previous connection with these projects. The Commission, nominated in January 1920, was constituted as follows:—Mr. F. St. John Gebbie, Chief Engineer, Bombay, who had been last engaged on the Sukkur barrage scheme—nominated by the Indian Government (Chairman); Dr. G. C. Simpson, meteorologist at Simla—nominated by Cambridge University; Mr. H. T. Cory, who directed the Salton sea works, California, in 1906—nominated by the American Government; with Mr. J. L. Capes, of the Egyptian Ministry of Education, as the Secretary.

CHAPTER XXXIII

Agriculture—Ancient methods—Modern systems—Government encouragement—Natural improvidence of the people—Department of Agriculture—Native irrigation—Crops under cultivation—Cereals—Wheat—Dura—Ground-nuts—Dates—Varieties of produce—Transportation anomalies—Profits upon land cultivation—Government Experimental Farms—Shadufs—Sakias—Taboot—Cattle trade—Prospects under normal conditions—Wealth of natives in cattle—Pasturing and watering in the interior—Respective grazing districts—Recognised rights—Relations between native tribes—Trade in hides and skins—The Sudan's customers—Veterinary Department.

How the nations of antiquity tilled and sowed and reaped their crops and by what methods they converted them into food and raiment we shall never know. Our information on the subject goes back no farther than the records left by Diodorus Siculus, who has described with much particularity the skill and industry of the farmers of ancient Egypt. It would seem that these wonderful people knew all about the rotation of crops and how to adapt the soil to the seasons as they came round. The Sicilian historian's descriptions come home very closely to the visitor to the Sudan, for some of the incidents and facts that are set forth in regard to the ancient methods of land-cultivation, and especially to irrigation, were almost precisely similar to those employed to-day.

The Government, recognising the enormous importance of agriculture to the people, even though the natives still cling with stubborn affection to their primitive methods and are awakening but slowly to the advantages of modern considerations and scientific changes, has done, and is doing, everything possible to aid in making the Sudan first and foremost an agricultural producing country. An industrious population could make a paradise of some parts of the

Sudan, and an enormous granary of others ; but the generality of the people are not industrious, and probably never will become so. On the other hand, one has to remember the extremely trying climate in which they live and how little regard they pay to the heaping up of wealth for themselves or their families. Sufficient for the day is sufficient for them ; but few take heed of the morrow. Again, they need so little to satisfy their simple requirements, and that little is so easily obtained, that it is wholly unreasonable to expect the Sudanese to become industrious in the same sense as the Argentines or the Australians or, yet again, the East Indians, who labour in the fields to secure a plentiful harvest.

It is not to be inferred, however, that no hoarding of agricultural produce is indulged in. In years of good rainfall the people obtain excellent crops which suffice to allow them to store up several years' supply ; some of them do so, and even in the days of the Mahdi grain pits existed which contained the accumulated harvests of several years. To-day, also, the grain merchants maintain hoards of grain and make "corners" so soon as any threat of shortage in the season's crops is observed. But the average cultivator thinks little of these things ; consequently, being dependent as he is upon agriculture not only for ready money but for his daily food, when deprived of the means of producing crops he simultaneously loses by the same stroke of fortune the means of purchasing such food.

The method of storing grain in "matmuras"—pits dug in the ground and elliptical in shape—is very faulty ; access is very easy to white ants, which destroy large quantities of the grain, while the owner is compelled to extract for his immediate use the last amount added, there being no facilities for removing the grain even temporarily. Gradually the "matmuras" system of storage is being discontinued, and more economical and sanitary methods adopted. Already many of the grain merchants and private owners of stores have commenced to use the "mastabas," by which means not only can the ravages by white ants be better controlled, but access to the oldest portion of the grain

obtained instead of, as at present, to the newest. An accurate computation of the amount in store is also rendered easy.

The Department of Agriculture is one of the busiest and one of the most responsible sections of the Administration, having upon its permanent staff an Assistant Director, a Chief and five Inspectors, who are each and all experts in their respective departments.

The spread of Nile irrigation was one of the four principal "planks in the platform" put forward by the late Lord Cromer, and regarded as constituting the future basis for the administration of the Sudan—the other three being light taxation, equal justice, and increased means of transportation. All four of these benefits have been conferred, and in a measure which those who sneered at the ambitious projects would never allow as even possible.

Among those, however, who believed in the regeneration of the Sudan through agriculture by instituting a thoroughly sound and ample system of irrigation has been Sir William Garstin, who has visited the Sudan upon several occasions and has traversed it in many directions. Already the expenditure which has been incurred in the directions recommended by Sir William Garstin and other experts show promise of becoming permanently successful; the greatest scheme of all—the irrigation of the vast Gezira plain—has actually been commenced, and may well mean the economic salvation of the country.

Notwithstanding the serious drawbacks encountered by cultivators during the last few years owing to lack of rain in some parts of the country and to an exceptionally low Nile in others, the amount of crops under cultivation has shown an advance in both quantity and value.

An important impetus is likely to attend the pursuit of intelligent agriculture among the natives by the holding of periodical shows; when the first attempt of this kind was made at Tokar, in the Red Sea Province, a representative show was organised under the auspices of the Government, prizes for modest amounts—not exceeding a value of £E2—being offered. The exhibits included six classes of cotton, eleven classes of live stock, and four classes in the ploughing

competition. Among those who participated were the pupils of the Government School at Tokar, cotton and vegetables grown upon the experimental farm being among the most successful of the exhibits. Similar shows have been held in various parts of the Sudan since the year 1904.

Cereals can be cultivated in certain parts of the country with profit. In the Berber Province wheat has been grown and made to pay well; some years ago (1906) a gross yield of 835 p.t. ($=£8 : 10 : 3$) per feddân on an area of 80 feddâns (acres) was obtained. Naturally, such a return could not be reckoned upon as a general thing. In the Halfa Province enough grain has been produced in good times in Sukkot to meet local requirements, but the greater part of the province must always depend upon importations of wheat from Dongola and Egypt. In the provinces of Sennar and Blue Nile large varieties of *dura* are cultivated, while in Dongola the cultivators have found wheat so remunerative that they have paid little or no attention to cotton.

The majority of crops of *dura* grown on the plantations at Tayiba were of what is known as the "ghassabi" variety. The average over the total area was 3.5 ardebs per feddân, the highest return being that from a 10-feddân block of ghassabi amounting to 6.8 ardebs. Of Wad-el-Fahl, however, one feddân yielded as much as 8 ardebs. Usually a *dura* crop is followed by one of *lubia*, and then the ground is "eaten off" by sheep. The *dura* crop is sold per ardeb of 12 kelas by the cultivators.

Certain investigations have been proceeding in regard to the possible commercial utilisation of Sudan-grown *dura* in Europe, the Imperial Institute having induced the Agricultural Department of Durham University to make a series of tests. The results of the trials proved satisfactory, and indicated that Sudan *dura* could be used advantageously instead of maize as a feeding-stuff for cows. Since it has been proved that both *dura* and wheat grown in that country are marketable abroad—the first as feed for animals and the second for flour for human consumption—a promising prospect is opened for the Sudan in this branch of agricultural production.

Earlier reference has been made in these pages to the ground- or earth-nuts, known locally as *ful sudani*, which constitute in themselves a delicious and nutritious food, especially appetising in the form of a soup or porridge. It needs a heavy rainfall to bring the nuts to perfection and to an abundance. The area returned as under earth-nuts cultivation is nearly 19,000 feddâns.

Other products which form an important part of the native requirements include dates. A considerable trade has been built up between Dongola and other parts of the country, while Halfa is also becoming known as a supply-market for this fruit. Some years ago samples from both provinces were submitted to the British Chamber of Commerce at Aden, an important centre of the date traffic from the Persian Gulf districts. The experiment proved on the whole encouraging. There seems to be little reason why the Sudan dry date, although of a different quality from the soft date of the Persian Gulf, should not compete with the latter. For years past date-tree planting has been carried on extensively in the Dongola district, the Government having encouraged enterprise among the natives by reducing the railway transportation rates. Date-tree planting is also prospering in the Berber Province.

In Halfa Province the Goudeila date is grown in preference to the Barakawi, notwithstanding the latter is a superior fruit and obtains higher prices. This may be accounted for by the earlier bearing of the Goudeila variety, and the fact that enterprising purchasers of so-called Barakawi shoots from Sukkot (the chief source of supply) often discover that they have been deceived. The shoots of the latter variety are also very costly, the price averaging from 2 to 4 p.t. each at Wadi Halfa, while the freight is heavy owing to the Railway Department having classified the shoot as "young trees." It is difficult to understand why Dongola should have been favoured in one respect while Halfa has been handicapped in another. To the uninitiated this policy seems perverse.

That some good land bargains are—or rather were—occasionally to be met with in the Sudan was proved when

the Khartoum North Farm and Mills, which had cost the original owners something over £E25,000 for equipment and establishment, were sold for the sum of £E7000. Some excellent crops have been at various times grown upon this land, as much as $7\frac{1}{2}$ kantars (1 kantar=99·05 lbs.) of ginned cotton per feddân (acre) having been raised one year. Many irrigation improvements have since been made upon this property.

Substantial profits are also gained by some of the more industrious—and perhaps more lucky—cultivators; a number, for instance, who leased from the Government farm lands belonging to the Kamlin estate, which has an area of 150 feddâns, and who paid about £E4 per feddân as rent and for water, realised nearly £E15 per acre. The policy of the Government in supplying the more worthy cultivator with his land and what he needs to make it productive at the lowest possible price—that is to say, without incurring any financial loss upon the enterprise—has proved thoroughly sound. The Kamlin experiment has abundantly justified the policy, and it may serve as an encouragement in other directions.

The Government has its own Experimental Farm at Shambat, a short distance from Khartoum City; the operations there have been considerably extended of late. The early history of the farm was not altogether commendable, many mistakes having been made in connection with its management; under later direction, however, a different result has been gained. The farm is about 180 acres in extent, situated on the east bank of the Nile, and level with the extreme end of Tuti Island.

Irrigation, which forms so vitally important a part in the cultivation of land in the Sudan, is provided by (1) pumps, (2) sakias, (3) shadufs, (4) canals. Shaduf- or sakia-watered land on the Blue Nile, for instance, yields 5 ardebs of dura shami (Indian corn) per feddân, whilst on the White Nile from $3\frac{1}{2}$ to 4 ardebs is regarded as an average crop. Irrigation on the first-named river is usually by sakia, and on the second-named by shaduf. Wheat is cultivated to a limited extent by shaduf or sakia irrigation,

but this is found too expensive to be popular with the usually very poor native.

The shaduf, or shadoof, seen at work in the Sudan and Egypt to-day is practically the same machine that was used by the Egyptians in the time of the Pharaohs. It consists of a palm-tree pole resting upon a beam placed across two columns of brick or mud—usually the latter—and having at one extremity a weight—made of mud—and at the other end a bowl-shaped bucket suspended by a stick. A man stands beneath it, and pulling down the bucket to the water's edge raises it again, assisted by the weight and the elastic nature of the palm pole. Sometimes, especially at low Nile, the height of the bank above the level of the river is as much as thirty-five or forty feet, rendering it impossible to raise water in the ordinary way by the lever and bucket; the ingenious cultivators therefore construct upon the sloping bank four or more small reservoirs, placed one above another, in which water is successively poured and again emptied by an equal number of hydraulic machines of the same pattern. Each of the shadufs is worked by a man or a boy; the water when it has reached the top reservoir is distributed by means of small canals made by banking up the soil to the height of a few inches over the cultivated area.

The sakia—also sometimes spelled “sagia” and “sakiyeh”—is composed of a horizontal wheel turned by one or a couple of bulls, and connected with a vertical wheel which is on the same axis as another around which are earthen or tin pots in which water is raised, and as they revolve they empty their contents into a trough, from which it is conducted by similar small canals or ditches to the land. There exists also the taboot, which differs from the sakia principally in having a hollow wheel instead of the wheel with pots, in the jaufnts or fellies of which the water is conveyed. Sometimes a katweh is employed; this is a bucket similar to the shaduf, having four cords by which two men dip it into the river or canal and raise the water. This type is found almost exclusively in use in Kordofan.

The live-stock trade of the Sudan may be regarded as one of its most promising industries ; like that of agriculture, however, long drought has occasionally worked much evil owing to lack of grazing. With only moderately good rains the Sudan should be capable of making great progress with the cattle-breeding industry. El Obeid and the western district form the principal seat of the industry. In the busiest season something like 1000 head leave Kordofan by railway en route to Egypt, while many thousands of beasts and sheep are exported from the country by river *via* Halfa.

A rapidly growing cattle trade is being carried on upon the Upper Nile among the Shilluk and Dinka tribes. Here Arab traders in small "gyassas" come to traffic with the natives, and offer them cheap trash in the form of coloured beads, common gaudy cotton goods, inferior iron spear-heads, and such articles in exchange for their cattle, sheep, goats, donkeys, and ivory. These gyassas are often so crowded with miscellaneous merchandise, and subsequently with cattle, that there is barely room for their human freight in addition. When sufficient cattle have been amassed to form a consignment, they are sent down upon barges to Omdurman or to some other river station, towed by the regular steamers plying upon the White Nile. The profits made by the Arab traders are frequently enormous, enabling them to defray with ease the heavy transportation rates demanded by the Government steamers towing the barges.

It is difficult to make a prolonged journey through the interior of the Sudan, more especially in the provinces of Kassala, the Red Sea, and Kordofan, without being favourably impressed with the apparent wealth of cattle, and the great possibilities that would appear to prevail for the further promotion of this great aid to national prosperity.

Vast herds of horned and hornless cattle, many thousands of goats and sheep, and many droves of asses are encountered ; nearly all of the animals seem to be in the pink of condition, more particularly in the neighbourhood of the permanent wells. Here they are brought from long distances, as well

as from neighbouring villages, to quench their thirst, and to browse upon the comparatively luxuriant herbage.

One is forcibly struck by the long and orderly processions of plodding beasts which pass and re-pass upon these roads—the lowing cattle, each herd comprising, perhaps, 150 to 200 beasts; the loudly bleating, merrily skipping goats; the more sedate and ever-patient plodding little asses, maintaining the most complete discipline, no one animal attempting to stray far from its companions in order to join the ranks of some other among the advancing or following companies. Even when the herds are seen approaching one another from opposite directions, and upon the same narrowly defined track, the columns merge into one another no more than do the waters of the Black and White Amazon streams, which race along side by side for over 100 miles each preserving its own individuality.

Generally speaking, each cattle-owning tribe adheres to one part of the country, which it regards—and is so regarded by others—as its particular prescriptive grazing-ground. Thus, in the Kassala Province, portions of the Derudeb and Godamaieb valleys are consecrated to the use of the Haikolab tribe, while the Gemilabs frequent Khor Langeb, and Tibilot is the recognised grazing-ground of both the Haikolab and the Shibodinab tribes. Then, again, certain tribes water their cattle at certain specified wells, and seldom interfere with one another's privileges in this respect.

Beyond these accepted customs, however, there seem to be but few amenities in existence between the different tribes, who quarrel almost as frequently as was the case before the British occupation, and who would doubtless still like to try conclusions with, and to make occasional raids upon, one another; but the weight of the stout arm of the Administration, which is enabled to make itself felt, serves as a sufficiently forcible deterrent.

It would be useless to attempt to compute the number of beasts contained in the Sudan to-day; even an approximate estimate would be necessarily imperfect, since many hundreds of thousands of cattle, belonging to the nomad tribes, wander ceaselessly about the interior of the country from pasturage

to pasturage, hidden in the mountains or concealed in the thick forest districts. The Government knows more or less—probably less—the number of cattle in certain districts where the herd tax is collected; but beyond the actual owners, who are aware, to the last calf born or the latest kid lost, exactly how many head they have or had, no one can have any idea of the number of animals in existence.

Where so much cattle is found one also expects the trade in hides and skins to be correspondingly prosperous. Most of the untanned hides appear to have been formerly sold to Austria, although France, Great Britain, and India were good customers.

It was some time before the Government was enabled to make any considerable headway in inducing the cattle-owning natives to accept the services of the veterinary staff. The position was even a dangerous one, since in the event of the cattle succumbing after medical treatment the ignorant owners at once attributed the cause to the witchcraft of the veterinary; even to-day, notwithstanding the manifold benefits which have attended the cattle industry since the institution of the admirable Veterinary Department, some of the natives are difficult to convince regarding the intentions and *bona fides* of the staff. On the other hand, the more intelligent among them are apparently grateful for the assistance rendered, and readily co-operate with the inspectors in detecting and reporting cases of disease.

The Department now consists of a Director, an Assistant Director, and eleven veterinary inspectors. Some of these officials have been in the service of the Government for many years. During 1913 the organisation of the Department underwent some modification, a division taking place of the activities of the inspectors—rendered possible by the addition of six new men to their ranks—into four main channels or sections—namely, general, veterinary, veterinary survey, quarantine and breeding, and complementary sections to deal with stores and accounts.

CHAPTER XXXIV

Agriculture (continued)—Antiquity of cotton cultivation—Advantages and disadvantages of the Sudan—Present output—Natives engaged—Importance of industry—Experiments in Zeidab—Cultivation in the provinces—Cotton cultivation at Tokar—Methods adopted—Classes—Native cultivators—Improvement in system—Modern agricultural implements—Effect of tillage in flood times—Average yields—Official duties—Government conditions of help—Sowing—Picking—Marketing—Cultivation and values—Protecting the grower—Former buyers' methods—Sales by auction—First- and second-class cotton—Export to Egypt—Mr. W. A. Davie—Improvements in cultivation—Early reports and subsequent results.

COTTON has been known in Egypt since the time of the Pharaohs—a thousand years before the birth of Christ. There are many who believe that cotton was known even earlier, since most of the mummies found in the tombs of the kings which had been interred seven thousand years before were swathed in material supposed to be of cotton. Microscopical examination, however, proved this to have been of linen, the difference between the two materials being that while cotton is a downy substance which grows on pods upon a shrub, linen is the product of a fibre gathered from a plant called flax. But even if the ancient Egyptians obtained their cotton supplies from Abyssinia, the Sudan, or India, as many historians declare, the fact remains that cotton was grown in Upper Egypt in the days of the Ptolemies, while Pliny the Elder, who flourished between A.D. 23 and 79, sets forth "how he found the "cotton tree" growing there, a statement substantiated by other famous authorities of those and later times. Ancient Peru also knew the cotton bush, and during the early voyages of the western explorers the use of the material was frequently observed.

The Sudan possesses many—but by no means all—of the

advantages necessary for the successful cultivation of cotton. The best production requires a deep, mellow, rich soil and a hot, steaming atmosphere, with plenty of moisture during the period of greatest growth, and a drier atmosphere during the ripening of the crop. If these conditions exist in the Sudan to an extent a little less perfect than in, say, the Southern States of America, they nevertheless prevail sufficiently to ensure success for cultivation of the plant upon an unlimited scale. Neither East Africa, India, West Africa, nor the West Indies appear to offer superior attractions, yet in all of these countries cotton-growing is followed with advantage.

The Sudan possesses also another essential, one which is becoming more pronounced every year as the population increases—abundant and fairly cheap labour. While less industrious and less efficient than the Egyptian fellaheen, and of course less numerous, the Sudanese—including the Nubians in the north, the Negroes in the south, and the Bedouins in the desert—are gradually being induced to take more kindly to agriculture, and especially to cotton-growing under irrigation. The least satisfactory aspect of the labour question is the general indifference of the average Sudanese to physical labour of any kind. Rarely is he so poor that he is compelled to work to find sufficient food; while—unlike his Egyptian brother—he is more free from the clutch of the usurer. For the purpose of cotton-picking the services of women and children are employed, and the really thrifty Sudanese wife and mother will toil long and late in order to earn something additional for herself and her household. If the labour question, therefore, is not exactly settled, at least it has been proved partly soluble.

The present drawback to cotton-growing upon an extensive scale in the Sudan is the lack of a permanent water-supply. The whole question, indeed, turns upon this phase, and where an annual rainfall can be depended upon, as for instance on the Red Sea littoral, success has already been achieved to a remarkable extent. Along the banks of the Nile irrigation is secured by means of primitive water-raising machines—the shaduf and the sakia, as

pointed out in the previous chapter ; and where the labour of lifting the water and distributing it over the ground is so great and the net results obtained are so small, the limits of cotton or of any other cultivation by such means are naturally soon reached.

The full development of the Sudan's cotton-fields depends upon finding the same kind of copious water-supply as that now bestowed upon Egypt—namely, basin irrigation and irrigation by means of a dam and numerous canals. Basin irrigation of 150,000 feddâns in the province of Dongola and 200,000 feddâns in that of Kassala has been already completely planned and, indeed, partly carried out ; the ambitious scheme by which a part of the immense Gezira plain can be transformed into an extensive cotton-growing area, by means of an elaborate irrigation installation, has already been commented upon.

That the Sudan may be expected to respond, and to respond handsomely, to the introduction of this valuable additional aid to cotton-growing seems clear from the fact that already, even in its absence, the country is exporting thousands of bales of cotton per annum. With the outlay of £3,000,000 as a commencement, to be devoted to the Gezira scheme, £150,000 for the Tokar enterprise, and £250,000 for that of Kassala, there exists every prospect that the Sudan will become one of the greatest—if not the greatest—of the sources of the supply for our Lancashire mills.

How important may become the question of increasing and cheapening the supply of raw material is shown by the number of people in this country who are dependent upon the cotton-spinning industry, and upon the prices which our manufacturers now have to pay. There are over 628,500 such operatives employed, while out of 134,000,000 spindles operating in the whole world Great Britain accounts for 55,000,000. It is in Lancashire that the finest kind of cotton-spinning is carried on, and every year the quality becomes finer. Manufacturers are greatly dependent upon the Egyptian cotton for the particular class of work mentioned, and any shortage in the supply would entail great hardships

on the operatives. On the other hand, prices of the raw material have advanced considerably since 1912, and it may be borne in mind that every farthing added to the price means the outlay of hundreds of thousands of pounds sterling to the buyers. For instance, an increase of 2½d. per lb. on the world's cotton crop would be equivalent to a sum of £100,000,000.

The importance of the industry of cotton cultivation to Egypt is seen from the return made by that country. The annual yield amounts to 1,000,000 bales, each averaging 750 lbs. Of this quantity Great Britain consumes one half. To produce it, over 500,000 cultivators are employed whose individual output varies from one half of a bale to 100 bales. How many years will it take before the Sudan will be able to boast of an output equally important?

Foreseeing wherein lay an important part of the future of the Sudan from an economic point of view, the Administration commenced to lay plans for cotton-growing at first upon a modest—to be followed by a more comprehensive—scale, almost as soon as the country came under the control of a civilised government. A few private individuals or syndicates were encouraged to cultivate small areas in a more or less experimental manner. Berber had been among the earliest of the provinces to enter upon such undertaking. The Government helped on the enterprise, concessions of a liberal nature in regard to land being granted. Mr. Leigh Hunt, a wealthy American, for example, accepted from the Government an allotment of 10,000 acres situated at Zeidab, on the Nile, not far from Atbara, and here, in 1904, he set to work levelling, irrigating, and cultivating part of his great area.

Like many other pioneers, however, whether they enter upon land-cultivation or mining, Mr. Leigh Hunt committed initial mistakes, not the least of which was the construction of an enormous and costly brick building, destined to become his private residence, when a much more simple and far less expensive edifice would have amply sufficed. After a few years' struggle to make a financial success of his enterprise, and the expenditure of a prodigious amount of

money, Mr. Leigh Hunt sold out his interests, it is understood, at a substantial loss, to the London firm whom he had previously represented in the Sudan. A company was then formed under the title of the Sudan Plantations Syndicate, Limited. Its operations have formed the subject of comment in an earlier portion of this volume.

Thus the industry of cotton cultivation upon a systematic scale was commenced, and by the beginning of 1906 cotton was being grown more or less successfully in the White Nile Province (an experiment made at El Ducim gave a result of between $17\frac{1}{2}$ and 20 kantars to two acres) ; in the Khartoum Province, where some 400 acres were put under cultivation ; in the Sennar Province, whence 100 different exhibits of produce were sent during the year to a local cotton show ; in the Red Sea Province, Tokar having entered thoroughly into the spirit of the enterprise ; at Kassala, and at a few other points. Up to the end of September 1906 sufficient cultivation had been carried out to enable it to be seen that the country could offer considerable inducement to growers and to capitalists to persevere with the undertaking, notwithstanding the many disappointments occasioned by uncertain rains, a low river, and the visitations of swarms of locusts. Yet progress proved slow.

But for the outbreak of the European War the Sudan Plantations Syndicate would have commenced their arrangements, in conjunction with the Government, for taking up cotton cultivation upon the Gezira. With the return of normal conditions this enterprise is being proceeded with.

The authorities have done what they can to protect the native cotton-cultivator from the evil consequences attending his own stupidity and stubbornness. But for the close supervision exercised, and for the continual threat held out of refusing to lease to any cultivator who neglects to follow the regulations which—after much careful thought and experiment—have been laid down, the average agriculturist would soon become the prey of the sharp and often dishonest buyers and speculators who swarm at Tokar during the cotton auction season.

A practice had long existed by which the small cultivator

accepted contracts to deliver his cotton to some particular buyer in consideration for money, or more frequently for goods, received. The cotton was duly delivered at a fixed, and usually at a low, price, the cultivator receiving no particular benefit from a good year on account of the higher prices ruling, whereas the buyer incurred absolutely no risks. As an instance of this may be mentioned the experiences gained during the 1911 season, when buyers were taking cotton from the cultivators at 40 piastres per kantar at a time that it was actually selling on the market at 150 piastres per kantar. Under the present system, recently introduced by the authorities, such usury cannot be practised. The cultivator also is gradually becoming more wise and more wary, and his need for borrowing money at ruinous rates of interest is diminishing day by day.

The whole of the cotton crop is now sent to public auction under the eye of Government officials, and at the auction a strict watch is kept upon any attempt to form "rings" or unfair combinations between buyers and brokers to the detriment of the cultivators; the system of observation is so close and so constant in its operation that practically nothing of this kind can now take place.

The cotton is brought by the cultivator to what is known as the "dukhulia"—not through any compulsion, be it added, since the owner may within limits do with his property precisely as he pleases. An auction is held each day during the season at noon, and anything arriving at a later hour remains for the following day's sale. The produce, after being inspected by the officers in charge, is classified by them as "firsts" and "seconds," according to the clean or soiled condition—dry or damp—in which it arrives.

Second-class cotton sells always at 10 p.t. less than the first-class article, and goes to the highest bidder at the auction of the first-class stuff. It cannot be removed from the dukhulia until all the first-class cotton has been cleared. No seller need necessarily accept the prices offered, and at the end of the auction he is free to take away the whole of his unsold lots. Sellers, on the other hand, may either allow their produce to go to the highest bidder or put it upon the

of cotton at Tokar was then available, the experiments were undertaken for the acquisition of data more particularly on the following lines :

(1) A comparison of Afifi¹ with other Egyptian varieties, such as Assili, Nubari, and Abbassi, and also with long-stapled American varieties, the idea being to find the variety of cotton most suitable for the Sudan delta ;

(2) The effect of improved tillage on the conservation of water, and on the crop yields ;

(3) General experimental work regarding the best dates for sowing, distances for planting, methods of planting, the effects of pruning ;

(4) To determine whether Afifi deteriorated on the continued growth at Tokar ; and

(5) To carry on seed collection and thus obtain a strain of Afifi, etc., acclimatised to Tokar.

The good results arising from using the Tokar farm as a demonstration-area have been marked. Native cultivators now evince a keen interest in the experimental plots, and they are aware of the beneficial effects of good tillage. As one consequence several natives have purchased English ploughs through the Inspector of Agriculture. Many cultivators have also adopted methods employed on the experimental farm in the form of sowing, hoeing, etc.

The effect of tillage in advance of the flood has been proved to have a marked effect upon the yield ; likewise increased tillage subsequent to the flood has proved advantageous. From working the experimental plots it has been learned that the average yields which may be expected with good cultivation, on lightly, moderately, and well-irrigated land, are as follows :

¹ It has been proved that Afifi—if not the best—is nevertheless a variety of cotton well suited to Tokar. It has been found superior to Abbassi, and, to a less extent, to Nubari. Assili, which is really an improved Afifi, is still being tried in comparison with Afifi. It has also been proved that long-stapled American varieties can be very successfully grown in the Sudan. The American varieties mature from 35 to 45 days earlier than Afifi, while, as a rule, they yield more heavily, indeed frequently as much as half again as Afifi. It has also been found that Afifi, on continued growth, does not deteriorate, but, on the other hand, tends to improve through acclimatisation.

Lightly irrigated . . .	400-600 rotls ¹ seed cotton.
Moderately irrigated . . .	700-900 " "
Well irrigated . . .	1000-1200 " "

Much higher yields have been obtained on well-watered land over limited areas, but the foregoing shows the average yields that may be expected. From this experience it appeared that specific taxes might with safety be raised upon cotton crops.

The control of Tokar lands is in the hands of the Red Sea Province officials. The Civil Inspector lets out the land, sees that the rules of the Sudan Cotton Ordinance, applicable to Tokar, are duly observed, arranges the remission of taxes where permissible, and collects all taxes. The agricultural staff, consisting of a European Inspector and several Sudanese agriculturists, are always available to give technical advice and any kind of active assistance in the form of general supervision which may be required by the Civil Inspector of the province.

The cultivated land belongs to the Government, and is let out to tenants upon an annual lease under the specified conditions of the Sudan Cotton Ordinance, which are well understood but rarely enforced. The chief of the conditions are—

- I. Only cotton seed supplied by the Government may be sown.
- II. All Hindi and extraneous varieties appearing in the resultant crop must be destroyed.
- III. All cotton must be picked clean (*i.e.* rendered free from leaves and foreign matter).
- IV. All cotton must be brought to the Tokar cotton market, where it is to be weighed and classified by Government officials.
- V. At the end of the season all cotton stalks must be destroyed.
- VI. Instructions given by Government officials as regards method, sowing, cleaning of land, etc., must be carried out.

Since the land as indicated belongs to the Government

¹ 1 rotl = .99 lb.

and is let upon an annual lease, the officials are enabled to cancel leases or to reduce the areas held by tenants who are considered to cultivate their lands unsatisfactorily.

The taxes imposed, including rental, are as follows :

	1st Class Land	2nd Class.	3rd Class.
On local men . . .	60 p.t. per feddân	50 p.t.	30 p.t.
On outsiders . . .	80 " "	60 " "	40 " "

There are also levied a school tax, amounting to 1 p.t. per feddân, and a ghaffir's tax also of 1 p.t. The amount of tax is chiefly decided by the nature of the flooding which the particular areas have received. Taxes are entirely remitted upon areas which have failed through want of water, or reduced upon areas which have been insufficiently watered. The fairness of this arrangement is one of the many regulations framed by a generous and discriminating Government, and strongly appeals to the mind of the native cultivator. The Sudanese, like many others, often prefer equity to strict law.

In an average year about 40,000 feddâns of cotton-growing land are leased ; the whole of this area, however, will not bear tax owing to the fact that considerable areas will not be sufficiently watered. In recent years the area devoted to cotton-growing manifests a considerable increase ; as a consequence the Government's revenue from this source of taxation has steadily augmented.

The cotton seed, Afifi, is purchased each year in Alexandria, and imported into the Sudan. The seed is issued to tenants on loan, the price being recovered at about the time that the cotton is picked. On the Tokar Government farm trials have been, and are being, carried out with locally grown Afifi seed ; the results indicate that no deterioration takes place on continued growth at Tokar. Once a satisfactory type of Afifi has been cultivated, it will no longer be necessary to import any seed.

The cotton season endures from the end of August to the middle of May. As a rule, little preparation is given to the land prior to the arrival of the flood, but on the Tokar farm it has been shown that cultivation prior to the flood has had a marked effect upon yields. To this advantage native

cultivators are now giving considerable attention, but on the other hand so erratic is the course of the "barraka" that sometimes it proves a stumbling-block. A man may carefully cultivate his land in anticipation, while the flood may finally take a different course altogether.

Sowing takes place in the months of August, September, and October, according to how the land dries. With late floods a considerable amount of re-sowing is necessary. This part of the work is performed by means of the *saluka*: the amount of seed required is $\frac{1}{2}$ kela per feddân. Picking commences about the end of December and terminates early in May. This operation is largely carried out by pilgrims from the west coast. Payment was formerly made in kind, but to this serious objections were raised. Consequently operations are now performed on a basis of one millieme ($=\frac{1}{4}$ d.) per rotl, *i.e.* 10 p.t. ($=2$ s.) per 100 rotls, or so much for the day's labour.

After it has been picked, the cotton is brought to the Tokar market, where it is weighed and classified by Government officials, as already described. The cotton having been disposed of at public auction, it is transported to Trinkitat by camel, thence to Suakin by "sambuk" (a native craft), and at Suakin it is ginned under Government supervision.

As a result of using good seed, of care in picking and in classification, Tokar cotton has now become favourably known to the trade and obtained a recognised grade. Strong in staple, it is also of good colour. Owing to the fact that a great deal of the crop is hastened through the scarcity of water the staple proves somewhat irregular, and this constitutes one great drawback. It may be concluded, however, that Tokar cotton approaches Egyptian F.E.F. in quality, since not infrequently valuations in favour of Tokar over Egyptian lots are secured.

Over a series of years the yield per feddân has worked out at 430 rotls of seed cotton for the whole delta. This low average yield is due in part to the poor methods of cultivation, and also in part to the small returns accruing from badly watered areas.

CHAPTER XXXV

Forests—Danger of destruction—Attempts at preservation—Wooded provinces—Tree-planting experiments—Rubber—Result of experimental cultivation—The Sudan Rubber Syndicate—Government exhibits in London—Timber, gum, and palm forests—Openings for further trade—Land speculation—"Boom" of 1906-7—Collapse in 1908—Gambling by Greek land speculators—The Gezira lands—No speculation allowed—Land prices in Khartoum—Former and present rates—Land prices at Omdurman—Provincial rates—Agricultural land—Port Sudan land and building leases—Unsatisfactory conditions—Proposed revision of Ordinance.

ONE of the greatest problems with which the Government of the Sudan is confronted is the means of protecting the forest lands which still remain untouched. The reserves are by no means extensive considering the growing needs of the country, and it is absolutely necessary to maintain a close watch so that no more of the forest districts are destroyed by wanton fires or the reckless cutting down of timber-trees.

How serious has been the destruction of forests in times past is proved by the immense amount of wood consumed annually by the various governmental departments alone—the steamers, the railways, the supplies for military and civil works, the irrigation service, the education department, the British troops, etc., etc., independent of the amount disposed of to private purchasers. In a word, the Sudan forests are being used up at the alarming rate of 100,000 cubic metres, or, say, 3,500,000 cubic feet, per annum! no fresh planting upon a comprehensive scale has as yet been attempted. Generous as are the forest lands of the Sudan, it is only a question of time, and a very short time at that, before the country must become almost bare.

The Upper Nile Province supplies the finest contribution

in this direction, the White Nile ranking second, and that of Mongalla third. The smallest supply is that derived from Kassala, although, were the province possessed of a railway, a fairly substantial trade might be carried on in small timber for firewood; this, however, at present is unobtainable in quantities owing to the difficulty and expense of transportation.

In 1906 a serious attempt to control the situation—even at that time considered threatening—was made by Mr. A. F. Brown, then Director of Woods and Forests, who sought the advice and assistance of all the recognised authorities—Inspectors-General of Forests in Ceylon, Burmah, Bombay, and Madras—regarding the framing of an ordinance for the Sudan which should serve to protect the country from complete denudation of its timber. Undoubtedly but for the care then exercised there would be but few trees left in the provinces to-day; in 1913 the area of the reserved forests had been maintained at 234.95 square miles, which marked an improvement upon the preceding year (1912), when the area amounted to 231 square miles. The area of protected forest has, however, not been much added to since. The area under forest management now stands at 265.45 square miles, distributed among the provinces of Sennar (reserved 206, protected 30.5 square miles); Kordofan (reserved 25 square miles); and White Nile (reserved 30.5 square miles). Five new forests have been surveyed—namely at Bogra, Um Hassan, Korti, Maya Seniora, and Bahr-el-Zeráf. Two important reserves were saved from destruction by fire—at Harun and Desa—but, unfortunately, another—at Bados-Gerf—was completely burned.

In Kordofan, notwithstanding the precautions taken by the authorities, several gum forests have been lost through fires—mostly the outcome of negligence on the part of the natives; while the Railway Department, by omitting to keep the long grass cut and the locomotives from belching forth live sparks, has been held responsible for some other destructive conflagrations. In Kassala a number of forest fires have occurred from time to time; the area involved being extremely large, and the funds available to engage

wardens to look after it correspondingly small, these visitations may be expected to continue. However, some tree planting is done, especially in Dongola Province under the wise administration of that distinguished "Kitchener veteran" and model Governor Sir H. W. Jackson, where long avenues and several thick plantations of quick-growing trees such as the Indian cedar (*Cedrella tuna*), the Sudan cedar (*Soymida roupalifolia*), and the teak (*Tectona grandis*) have been introduced and have done well.

Rubber plantation is still somewhat slow, but nevertheless it has proved fairly encouraging. Ceará trees particularly appear to have done well in North Saoleil, where there are now over 20,000 healthy-looking trees with an outside girth of 14 inches at 3 feet from the ground, and a height of from 18 to 20 feet. Other kinds of rubber trees grown successfully in the Sudan have been *Manihot di Chotoma* and *pianhynis*, the largest girths of which have, so far, not exceeded 17 inches and 18 inches respectively.

The late Lord Kitchener, who owned a very prosperous Ceará rubber plantation in British East Africa, always evinced great interest in the cultivation in the Sudan; he watched the gradual development of the industry with great care and sympathy, notwithstanding the more serious concerns demanding his attention.

The Sudan Rubber Syndicate, originally formed from among some of the largest shareholders in the Sudan Plantations Syndicate, the Vine and General Trust, and the Kordofan Trading Company—each concern supplying one director to represent it—has on the whole made satisfactory progress in Bahr-el-Ghazal Province, where its land is situated. Disappointments and set-backs were expected, and indeed inevitable, but nothing can be said to have occurred which could have discouraged the Syndicate from continuing to pursue its enterprise.

All the attempts made hitherto to cultivate fibres such as China grass, hemp, flax, jute, and hibiscus have proved unsatisfactory—probably owing to the lack of rain in the districts tested. Fruit trees, with which experiments are now being made, promise better results, especially the

custard apple, the orange, the grape-vine, the pineapple, and the banana. Sir H. W. Jackson at Dongola, General Asser at Khartoum, and Colonel Dickinson at Wad Medani have certainly been successful in growing excellent fruit and in creating luxuriant gardens. A delicious and abundant crop of ground-nuts—from which an appetising soup is made—and ginger may do well in time if good rains are met with.

The Sudan Government very pluckily despatched an exhibit to the International Rubber and Allied Trades Exhibition which was held during 1914 in London; the display got together was in every way commendable, and much public attention was attracted. The articles shown included a great display of gums, various kinds of woods, many mounted botanical specimens under glass, fibres, rubber, and a large collection of photographs illustrating the exhibits. At the Imperial Institute at South Kensington there is now maintained a permanent display of Sudan products, upon which reports are being published from time to time in the Institute's monthly bulletin.

The provinces which contribute most largely to the output of timber, gum, and rubber are the Bahr-el-Ghazal, Berber, Blue Nile, Kassala, Khartoum, Kordofan, Mongalla, Red Sea, Sennar, Upper Nile, and White Nile—in fact, out of the whole of the fifteen provinces constituting the Anglo-Egyptian Sudan eleven contribute something in the way of forest products. The larger part of the gum comes from Kordofan; firewood principally from the White Nile and the Upper Nile; the most considerable amount of timber from Bahr-el-Ghazal, and the only rubber marketed at present from the same province.

There can be little doubt that a substantial amount of trade might be carried on by a private enterprise which elected to devote its attention to forest products such as palm leaves—which are found 'excellent for rope manufacture—and the dom-palm nut, a remarkably good substitute for ivory. A certain amount of profitable commerce is already being conducted in these articles, but this could be easily increased, and the profits earned considerably augmented. With the improved transportation on the

White Nile now afforded by the Government steamers, together with the quicker despatch from Port Sudan to European ports, enterprises of this kind, which for the reasons given could not have proved remunerative a dozen years ago, might easily become so under present conditions. Capitalists might with advantage turn their attention to these and similar opportunities for exploiting the resources of this promising country.

It has been proved that care and attention devoted to the handling of products intended for export soon justify themselves, and the case of the trade in dom-nuts may be cited as an instance. Whereas the total value of the exports in 1913 amounted to but £E6555, by the end of the following financial year the trade in the nuts had increased to £E13,763, a fact due almost entirely to the nut kernels being sliced before exportation from the Atbara factory—or, in other words, a semi-manufactured article has now been substituted for a raw product.

Land speculation in most countries of the world has always been a favourite form of gambling; there has been probably no newly settled locality where its pernicious effects have not been encountered at some time or other. Melbourne in the most sensational days of its madness could hardly have afforded more pronounced examples of wild land gambling than did Khartoum in 1906-7. Sites which had been obtainable in 1900—two years after the death of the "scourge of the Sudan," Abdullah the Khalifa—for one or two milliemmes¹ the square foot, were eagerly bid for in 1906 and 1907 at the rate of £E2 and even £E3 per square metre (3 feet 3½ inches); by the beginning of 1908 land was unsaleable at almost any price.

The Greeks as usual were found prominent among the land gamblers, and as a consequence they were as heavily "hit" as any in the eventual collapse. Firm after firm came down like a house built of cards, and even to-day the echoes of the "1908 crisis" are still to be heard, and the consequences are still being felt.

¹ 1 Millieme = ¼ d.; 10 milliemes (2½ d.), one piastre.

With regard to the land in the Gezira, which by reason of the irrigation system soon to be commenced there will become very much sought after, special precautions have been taken against any possibility of wild speculation recurring, such as was found to be the case in the earlier days of Khartoum. To this end the Government passed the following regulations :

- (1) The consent of the Governor will not be granted to any sales or dispositions by natives of the Sudan of the lands in the Gezira affected after July 1, 1905, except such sales to other natives of the same locality as have hitherto been customary and may be deemed by the Governor to be proper.
- (2) Endorsements on documents purporting to be dated before July 1, 1905, that they have been produced under the terms of Proclamation of June 1, 1907, are merely evidence that they have been so produced and not of any consent by the Governor to them.
- (3) The Government reserves the right to purchase or lease any lands in the Gezira at prices based on those which have hitherto been current on the sale or lease of similar lands in the same locality, without taking into consideration any increase to the value of the land accruing from any irrigation scheme, or other scheme, or works undertaken, or which it is anticipated may be undertaken, by the Government.

It is doubtful whether land in Khartoum will ever again rise to the artificial value which it reached in 1906-7. Building land at present has no actual market value ; when transactions take place—and these are few and far between—they form entirely a matter of negotiation. During the whole of the year 1908-9 there were not more than two transactions in first- and second-class lands, although dealings in the native plots of third-class lands have since continued in a desultory manner. During the financial “ boom ” of 1906 the best plots in Khartoum, such, for instance, as those situated in the locality of the Government buildings, banks,

and markets, reached as high as £E6 per metre; to-day difficulty would be found in securing a price equivalent to one-fourth of this sum. Enormous areas of vacant land are still available in Khartoum as first-class building sites, but there are now few buyers in the market.

The following constituted the ruling prices for lands at the end of the year 1913:

						Per sq. metre.
In town (Khartoum),	1st class building plots	.				60 p.t.
"	"	"	2nd	"	"	30 "
"	"	"	3rd	"	"	20 "

In 1914 the Government adopted for Khartoum a scheme, which had long been under contemplation, by means of which plots of land were sold to junior officials to enable them to build their own houses. Moreover, the same benevolent Administration made advances for the purpose, both purchase price and loan being repayable by easy instalments. The arrangement has proved in its operation eminently satisfactory; indeed, it could have been usefully extended had more money been at the disposal of the Government for the purpose. To an appreciable degree the inconveniences occasioned by the general lack of suitable dwelling-houses in Khartoum has been relieved.

Towards the end of 1913 quite "fancy prices" were being asked, and paid, for land in the new *suk* (market) at Omdurman; in one case a plot fetched the almost unprecedented figure of 242 p.t. (say £2:10s.) per square metre. It seems that fierce competition had long existed among the leading merchants for the choicest plots suitable for shops, and the piece of land referred to as having fetched this astonishing price—reminiscent of the boom days of 1906-7—was regarded as an exceptionally choice one.

When it was decided to destroy the old *suk* and erect a new one in its place, the owners of plots in the old were promised an equal area of land in the new. In cases where more than one applied for the same plot, it was put up for auction, the highest premium offered to the Government securing the land. Thus it came about that one plot of 60 metres was bought at a premium of £E90, which, in

addition to the price of the original plot owned by the purchaser, the registration fee, and other charges, brought the price of the land up to nearly 242 p.t. (nearly £2 : 10s.) per square metre.

Notwithstanding the difficulty of finding tenants for land unsettled and unbuilt upon, the Khartoum Land Registry in 1913 dealt with 372 different deeds affecting land in the city and the town of Khartoum North.

While Khartoum has not as yet recovered from the " slump " in land prices, some of the provincial towns have displayed great activity, and development has made decided progress in such places as El Obeid, Nahud (both in Kordofan), and Tokar, in the Red Sea Province. More attention is also being directed to smaller towns (and particularly to the occupation of their market-areas), which, although at the moment of minor importance, appear likely to expand. The local authorities are anxious that the occupation of all town-lands, as distinguished from native village-land, should be placed upon a settled basis ; unless the land actually belongs to the Government, the occupation of it by dwelling-houses or shops is now being regulated either by means of a grant of some definite tenure to the occupants or by constituting it a native lodging area, under the Government Town Lands Ordinance of 1912.

In Port Sudan, where at one time it was hoped something like a land " boom " would follow the opening of the port, complete slackness has manifested itself ; to so pronounced an extent, indeed, that the office of the Sub-Department of Lands was closed down, there having been insufficient business to warrant it being further maintained. The strict and complicated regulations covering the occupation of land and the erection of buildings thereon, maintained at Port Sudan, explain to a considerable extent the reason of this falling-off in the demand for additional leases. The officials themselves admit that the regulations published ten years ago, and still governing both the method of making and the dealing with applications for land, are antiquated and unworkable.

A lease or land certificate in the form at present in force

seems to the uninitiated to be a fearsome document, full of legal technicalities and confusing conditions, stipulations, provisos, covenants, and contingencies—almost unintelligible, in fact, to the “ordinary man,” and quite so, one might imagine, to others. The original Sudan land-laws are a relic which may well be relegated to the past ; it is understood that the Government, which fully recognises the defects, will ere long amend them so as to bring the conditions and regulations into line with modern ideas and requirements. Indeed, something substantial has already been done ; the system of the decentralisation of the work connected with the disposal of the town building plots, for instance, has been settled and made operative by the issue to the governors of all the provinces of instructions as to dealing with applications for building plots in any specific town without making formal reference to headquarters, and thereafter awaiting equally formal consent. This emendation will, undoubtedly, considerably improve matters in the provinces, while it will very acceptably relieve the already heavily burdened office in Khartoum of much routine work.

If the form in which leases are now made out be equally improved upon, and much of the “cackle” cut out, every one concerned would benefit, for things are not made on account of words, but words are put together for the sake of things, as the wise Diogenes Laertius explained some sixteen hundred years ago.

CHAPTER XXXVI

Travel in the Sudan—Conflicting opinions regarding outfits—Attractions of *saffaria*—Some attendant drawbacks—Camel-riding—Water-supply—Danger of drinking from rivers—Providing *fantasses*—Sterilising "Tabloids"—Medical supplies necessary—Risks of an overburdened commissariat—Necessity for careful consideration and expert advice—The size of a caravan—Length of daily journeys or *schids*—Rest-houses—Provision of a tent—A full equipment—Lack of protection against heat and cold—Mosquito nets.

To offer advice to a traveller in regard to the manner in which he should attire himself when touring in the interior of the Sudan would prove not alone a difficult but a profitless task. It depends much upon the character of the individual who tenders such counsel, as well as upon that of the recipient. Moreover, one man's personal requirements are different from those of another, just as one individual's constitution is much stronger than that of his brother; thus, what may be deemed to be indispensable to the comfort and security from danger of the one, becomes a complete superfluity in the case of the other.

As an example, we may consider the question of camel-riding, so indispensable to those who would travel the Sudan. A novice will be advised by one friend upon no account to ride a native-made saddle, but, preferably, to bring one which has been made in England or India and furnished with stirrups and a pillion.

He will, likewise, be assured that he must provide himself with a long and wide piece of stout cloth with which to tightly bind his chest and loins, and thus help to protect those parts of his body from dislocation as a result of the long-sustained jolts and bumps inflicted by his uncomfortable mount. Subsequently, upon talking over these suggestions

with a third party, the inquirer may be confidently assured that both ideas are wholly absurd, and that they may be safely dispensed with.

How, then, is the novice to act in view of such contradictory counsel? All that he can do is to practise riding with and without the aids advocated, and thus himself judge of their advantages or superfluity.

Personally, I agree *in toto* with the acceptance of both suggestions. I have found a native-made camel saddle an instrument of positive physical torture, while the stout, wide cummerbund has helped enormously by its sustaining power and firm grip of the waist and chest to minimise the wrench and shock of the continual *bump*, BUMP, BUMP inflicted by the ordinary trotting camel. There exist numerous other instances of entirely contrary advice regarding safeguards for personal comfort and convenience ; but sufficient, perhaps, has been said to show the impossibility of laying down any definite instructions likely to meet with common acceptance.

To some enthusiastic travellers *saffaria* presents the attractions of a delightful and perpetual picnic. To sleep in the open air, to collect your own firewood, to boil your own kettle, to kill your own meat, and then to secure your meals at wholly irregular intervals, apparently possess, with the romantically minded, fascinations peculiarly their own. Individually, I prefer to regulate my daily life somewhat less erratically, and a day or two of camping, with all its attendant worries and inconveniences, amply satisfies my craving for the life of the caravaneer.

I have, however, met very many more men who like than those who dislike *saffaria*, and, indeed, most officials who may find themselves tied for weeks, or possibly months, on end at their distant posts, regard their periodical official tours as a form of delightful recreation, without which their dreary lives would prove well-nigh intolerable.

Usually, official tours are undertaken with no other companionship than that of a few policemen (more for the purpose of *empressement* than necessity) and a couple of servants. Many of the officials' travels endure for weeks

together, only an occasional day's stop being made at the larger villages or towns, where, perchance, other white men are to be met with. Some among the old-time officials can claim to have performed camel-treks which, over a period of years, have amounted to a total of thousands of miles. For instance, Sir H. W. Jackson, the Governor of Dongola Province, and his former Senior Inspector, Captain Jackson (the two, by the by, are in no way related), have ridden and tramped on foot over many thousands of miles of country at different times. Both seem to have regarded their experiences not only with equanimity, but with a sense of positive enjoyment.

On the other hand, compulsory camel-riding for officials has its drawbacks. "Chinese" Gordon, when Governor-General of the Sudan, traversed alone 85 miles on his camel in one day and a half. "I have a splendid camel," he wrote, "none like it; it flies along and quite astonishes even the Arabs." Again, he declared complainingly, "Should I regret the eternal camel-riding, the heat, the misery, the discomforts of everything! Thousands of miles on camels, and no hope of rest for another year." During this period Gordon rode on his camel nearly 4000 miles through the desert.

The more cheery mortals on *saffaria* defy misfortune to interfere with their sense of enjoyment. They will witness without dismay a whole repast, laboriously prepared, completely ruined by a sudden gust of wind upsetting an improvised cooking apparatus; they will view a fast-moving, endless procession of bugs and beetles, attracted by the unaccustomed candle-light, meandering across the table, and becoming involved with the food; they will suffer the proximity of the loud-crunching, foul-smelling camel—all without a murmur of complaint. The occasional lack of sufficient water for ablutionary purposes, however, is endured with rather less resignation, for whatever else the average Briton may be, he is a clean animal, and abhors dirt or contamination of any kind, especially in regard to his own person.

It would not be correct to describe the Sudan, as I have

seen it described by some writers, as a "generally waterless country." Apart from the different river systems (of which a description will be found elsewhere in this volume) there are a fair number of wells scattered about the different provinces, and in but few parts of the country need a traveller go for more than eight or nine days without finding fresh water. During the heavy rains—which are met with usually between June and October—there is obtainable a great quantity of the precious liquid, but rains coincide with a condition of country which renders transportation extremely difficult and even dangerous, owing to the floods and severe electric storms, as well as the sodden state of the ground. In time, no doubt, reservoirs will be provided artificially among the numerous natural khors which exist, and which, at present, hold the abundant rainfall for no longer than a few weeks, thereafter allowing it to run to waste, or to become lost by evaporation and absorption.

In several parts of the Sudan there are some excellent sweet-water wells, such, for instance, as those at El Fau, Faraga and Wad Abu Saleb, in the province of Kassala, the latter being proved to a depth of 250 feet.

Generally speaking, all desert water is wholesome, although its appearance may be uninviting owing to the mud and other sedimentary accompaniments. If the water be found brackish it is best avoided, since in this case it may produce diarrhoea.

The majority of the wells are not always running, some becoming dry at certain seasons of the year, such, for instance, as those at Tobeldia, in the province of Kordofan, which cannot be depended upon for good water in any quantity after the month of February, while others run dry in December.

To-day this irregular and scanty supply of water is one of the travelling difficulties encountered in the Sudan. This was found to be the case by the gallant aeroplane party that made the first trans-African air-trip in the month of February 1920. It is a drawback which not alone affects those who journey by air, but those who pursue the more prosaic method afforded by camel and other beasts of

transport, and proves of much consequence to existing and, as it is bound to do, to projected railway travelling, since special provision must be made to find water for both beast and locomotive.

Permanent water-supplies must be established at suitable intervals, and these in most cases will probably prove both difficult and costly. Then, again, the long waterless stretches of country become in many instances swamps and roaring torrents at certain seasons of the year, so that further problems of a complex nature, some of which may baffle the ingenuity and resources of the engineering profession, must be taken into consideration in opening up new or maintaining existing routes of travel. The possible demands made by military operations, and both the moving and the provisioning of troops, naturally call for special attention.

As a rule, water can be obtained at a depth of from 8 to 20 feet in many places in Kordofan, but, as has been shown, there exist numerous wide areas of country—such, for instance, as those lying between Wad Medani, in the Blue Nile Province, and Gedaref, in the Kassala Province—where no water of any description has as yet been found.

Then, again, the fording of the several wide and swift-running rivers—the Blue Nile, the White Nile, the Rahad, the Atbara, and others—presents many difficulties, especially in flood-time. In a comparatively newly emancipated country like the Sudan the number of steel or even wooden bridges must necessarily be few on account of the heavy expense involved in their erection. But already there are several steel erections of great importance, such as those thrown across the Nile at Khartoum North, and Atbara, near the town of the same name, as well as the swing-bridge at Kosti. Until the time arrives—and this cannot be for several years to come—when the Government can find the necessary two or three millions sterling wherewith thoroughly to equip the country with a system of iron and steel bridges, resort must be had to ferries. Of these there are a sufficiency for the amount of trans-fluvial traffic offering, such ferries being let to contractors—mostly Arabs—who run them under

Government regulations and at charges strictly controlled and of a reasonable nature.

The inexperienced traveller who is well advised will exercise great cautiousness in imbibing river or well water, notwithstanding the strong temptation from which he will suffer ; he will have all water thoroughly well boiled before he permits it to pass his lips. In this connection, when making tentative inquiries among other dwellers in the Sudan, he will probably be confronted by the same perplexing and contradictory information that he may have noticed in relation to practically everything else upon which he has sought " expert " counsel.

Some informants will assure him that, while living for several years in the country, " they have never troubled themselves about boiling the water that they drink," and that " they take plenty of it." Others are just as impressive in warning the traveller to boil or filter every drop of water which he consumes, and, indeed, to insist upon both injunctions being observed by his servants.

Unquestionably there exists somewhat less danger in neglecting these precautions while in the open country ; but where the liquid is found in the neighbourhood of towns or villages it is merely courting disaster, in the form of an attack of typhoid fever, to ignore them.

In addition to filtering all drinking water, every vessel containing it should be periodically cleaned and purified. Canvas water-bottles—these are the best kind to use—soon become foul from the sun's heat and the impure water, and must be cleaned out with boiling water and soda ; disease germs, it has been proved, cannot thrive in water impregnated with soda. Cups, glasses, cooking utensils, and water-skins and *fantasses*—oblong iron tanks constructed so as to be portable on camel-back, and usually holding from 10 to 20 gallons of water each—must be similarly treated.

In the absence of any known satisfactory filter, the most convenient and efficacious method of sterilising drinking water is by making use of sterilising " Tabloids." They are made by Messrs. Burroughs, Wellcome, & Company of Snow Hill Buildings, London. Comparatively pure water

may be secured by the use of these "Tabloids." The same firm manufactures the most reliable and most compact and portable "Tabloid" medical and first-aid outfits for the tropics in convenient cases suitable for individuals or for large expeditions. It is essential to have absolutely pure and accurate medicaments. These Burroughs, Wellcome, & Co. products have been used and endorsed by Stanley and every other great traveller and explorer of modern times. The majority of people arrive burdened with an excessive quantity of unsuitable medicaments. In this age of patent medicines and quack remedies offered for the tropical countries one feels almost bewildered; the best advice that can be adopted is to avoid all such nostrums, and consult a good physician with tropical experience and adhere strictly to such indispensable drugs and chemicals as the experienced medical men can recommend, being careful to get nothing but the genuine pure medicines, for health is at stake and cheap drugs are dangerous. The list of medicines should include a bottle of good brandy, opium, chlorodyne, "Tabloids" of calomel, quinine, empirin, phenacetin, laxatives, etc., Epsom salts (in unlimited quantities, since one's servants can be dosed with it to good purpose when indisposed, usually as a consequence of over-eating or other simple indiscretion), and take a supply of "Soloids" or crystals of permanganate of potash, also boracic acid for cleansing lotions, talc powder for tired feet, ammonia for mosquito and *nimitti* stings, embrocation for stiff joints (and *how* stiff they become after the first full day's camel-ride only those who go through it can realise!), a supply of bandages, a portable case containing compressed first-aid dressings, and another one containing suitable "Tabloid" medicines. These will suffice for most purposes.

The consideration which should be given to one's travelling equipment for a long desert trek should be serious and deliberate. Too much careful thought, indeed, could hardly be devoted to this important subject; for upon its efficient handling depend both the health and the comfort of the traveller, and maybe even his personal safety.

But while one cannot give too much attention to the

details of *saffaria*, it is quite easy to burden oneself with too much material, just as it is possible to take too little. Here, again, it becomes difficult and futile to lay down any prescribed or dogmatic rules as to the character or the exact quantity of one's equipment ; travellers differ in their individual tastes and requirements just as widely as they may differ in disposition and constitution. What may be deemed indispensable to A. can be discarded without a qualm by B., while C., again, may find the barest necessities in the way of food and raiment answer all his material wants.

It is as well to recollect in this connection, however, that it is often found impossible to rectify any serious omission of provision, since for weeks, and sometimes for months, at a time the neglectful traveller may find himself completely divorced from civilisation, and not only out of touch with stores of even the humblest kind, but beyond the reach of the telegraph line.

On submitting a list of the various goods and chattels which (after consulting with other experienced travellers) I had decided to carry with me upon my prolonged journeys into the interior of the Sudan, I was assured by a firm in Cairo who were entrusted with the making-up and despatch of the order that I should starve to death unless I considerably amplified the supplies. I must admit that, notwithstanding the careful consideration which I devoted to the matter of final selection, I found upon several different occasions that I had omitted something most necessary,—that I had provided too much of one kind of provisions and insufficient of another. On the whole, however, little real discomfort was the outcome, although with more experience at command even this might have been obviated.

My caravan was a small one ; it consisted of myself (I crave pardon for this egoism), Mr. (now Colonel) C. Rowland-Taylor, three servants, a guide, and the necessary number of camel-men and camels. For a great part of the journey we were escorted by a couple of policemen, not so much from motives of safety as for our personal convenience and assistance. Both the camel-men and the policemen were provisioned, so that it became merely necessary to arrange

accommodation and provender for my companion and myself.¹

The first journey—divided into sections termed *schids*—arranged for was a moderately short one, lasting but fourteen days ; the second covered fifty days, and the third forty-five days. Only a comparatively small portion of the journey was performed by either railway or steamboat, camels forming the principal method of transportation adopted.

Bearing in mind the fact that at the few Sudan rest-houses (unlike the dak bungalows of India) there is to be found nothing in the way of either tables, chairs, or sleeping-benches, it became necessary, as a preliminary, to provide a folding table, two or three folding chairs, and two expanding folding beds.

An admirably-made folding bath, basin, and wash-hand stand combined, made of stout green canvas, fitting upon an expanding wooden frame, the whole encased in a neat canvas bag, has been designed, and is now in general use among those who go on *saffaria*. Other forms of travelling baths and wash-stands may be found, but the canvas (Wilcox X pattern) apparatus mentioned appears to be at once the cheapest and the most convenient.

All such equipment may be had in a thoroughly practical and easily portable form at reasonable prices ; most of the London and provincial stores usually stock such articles. In Khartoum, and even in Cairo, they may be purchased, but naturally at somewhat enhanced charges. When one adds to the original prices paid for such goods purchased at home the freight and customs charges levied by the Egyptian and Sudan Governments, the net saving effected by the buyer amounts to but very little, if, indeed, any exists at all.

With the provision of the furniture naturally arises the question of housing it. A tent is, in my experience, indispensable, although I am aware that a large number of Sudan travellers will join issue with me upon this matter. However, tents, single and double, may be purchased by those who require them, at reasonable figures, but only a thoroughly

¹ Native servants, as is the case also in India and the Far East, do not occupy beds, but sleep where and how they will, usually upon the floor of a bare room or upon the hard ground, while they are supposed to provide their own food. This they frequently do by stealing that of their employers.

well-made and durable fabric should be accepted, since a great amount of wear and tear must be expected. Not only is the tent, as a rule, erected and struck at least twice each day (at the breakfast and again at the supper halt), but it has to travel upon the back of a lurching, lumbering camel for many hundreds of miles, during which mode of progress huge holes are sometimes worn completely—by continual violent friction—through both the outer canvas covering (or sack) in which it is carried and the fabric of the tent itself. Careful packing upon the camel's back may prevent this; but how many Arab camel-men can be considered "careful"? Probably one in ten thousand.

This inclusion of a tent in one's *saffaria* equipment forms a highly controversial point. The ordinary man—usually young and blessed with an excellent constitution, and troubled with but few qualms regarding his ability to withstand extremes of heat and cold—will confidently dispense with a tent and advise others to do so, assuring them that such "luxuries" are cumbersome and wholly superfluous. Ill-advised, indeed, would be the inexperienced traveller, fresh from Europe, who followed this suggestion. Bitter, also, would be the reproaches heaped upon the head of his evil but absent counsellor when the cruel heat of day and the piercing winds of night found the wanderer unprepared to withstand the one or to defy the other.

Some of the Sudanese tracks lead across vast expanses of absolutely bare country, where neither a hill nor a puny bush can be found to serve as a protection against the intense and blistering heat of the sun during the day, which beats down upon the unhappy traveller with an intensity such as can be found in few other parts of the world, or against the cold penetrating winds which, especially just before dawn, swoop down upon the sleeper, awakening him to a sense of such misery and helplessness as he may never have previously experienced.

A tent of some sort—the double-fly pattern for preference—thus becomes absolutely indispensable, and I trust that no reader of these pages will ever allow himself to be dissuaded from providing such an accessory during his

travels, either in the Sudan or in any other part of tropical Africa where his wanderings may lead him.

If it only ensured a certain amount of privacy while dressing and undressing or bathing, a tent would be found desirable; but its additional advantages in allowing its owner to escape the worst effects of great heat and intense cold, sand, and innumerable insects, are likely to be voted inestimable.

We have, then, the tent and the barest amount of necessary camp furniture. Next comes the provision of sheets, blankets, pillows and pillow-cases, towels, and canvas mats upon which to stand the bed-frame, so as to avoid the numerous crawling and creeping insects with which the soil and some of the rest-houses teem; spare empty jute-sacks are also found extremely useful as temporary mats and coverings combined. All bedding, as well as the folding beds and other camp furniture, are carried in sacks, so as to be more readily slung upon camel-back; each sack should be numbered in both English and Arabic characters, and should be strictly reserved for the particular article or articles for which it was originally designated.

A last but highly important provision is the mosquito net. Owing to the absence or inadequate service of this article, many a traveller's life has been rendered absolutely wretched, and, indeed, insupportable, for even where the irritating *leptera* may be temporarily absent (in the dry season of the waterless deserts), myriads of horrid flies exist—big, black, fat insects of intolerable persistency, whose attacks by day, and especially in the early morning, render rest impossible.

In some parts of the Sudan even the finest mesh of mosquito netting fails to exclude the minute—almost invisible—insect known locally as the *nimitti*, or midge. During its brief but baneful existence, human life becomes not worth living. The minute species form unquestionably one of the greatest insect scourges from which any traveller can suffer. Even the natives endure agonies from their attacks, many fleeing wholesale from a village which is afflicted, while others, who perhaps find it impossible to seek safety in flight, adopt the expedient of wearing a piece of flaming tow or hempen grass attached to their turbans,

which serves to keep off the persistent little enemy so long as the flame burns or the grass continues to smoulder. By day as well as by night the *nimitti* pursue their ceaseless ravages, and, except for the somewhat clumsy and often dangerous native expedient mentioned, there seems to be no possible escape from their savage onslaught.

How necessary then does it become to provide at least a partial protection by invariably erecting a net over one's bed, even if it be to occupy it for a brief time only?

At last a really practical, convenient, and effectual protective head net has been invented. It is called the "Simpsonette" and is proof against mosquitoes, flies, gnats, midges, etc. It is simply indispensable to soldiers, travellers, explorers, planters, missionaries, and residents in places infested with biting and non-biting winged insects. This net effectually protects the head, face, and neck, which are the most vulnerable parts, from the attacks of mosquitoes that produce malarial fever, yellow fever, and other diseases; from tsetse flies which cause sleeping sickness, and from ordinary flies which are the bearers of the germs of ophthalmia, the enteric fevers and dysentery and other dangerous diseases. Some patterns of these "Simpsonette" hoods are made of very fine net which resists the most minute gnats, midges, sand-flies, while others are non-inflammable and of a special design that enables the wearer easily to smoke or drink without removing the net. Many previous attempts have been made to produce suitable head nets, but they have all been so cumbersome as to hamper the wearer. This "Simpsonette" hood is strongly recommended by the most eminent tropical authorities including Sir Patrick Manson, Colonel Andrew Balfour, Sir Ronald Ross, Dr. Chalmers of Khartoum, and Colonel Castellani. One of the many novel features of this head net is that it can be worn at all times with comfort, even in bed at night, and one can wear it under or over a helmet, hat, cap, or tarbusch. In malarious districts the hood should be put on before sunset and should be worn throughout the night. The inventor of this ingenious device will be blessed by residents and travellers in all mosquito-infested countries.

CHAPTER XXXVII

Travel in the Sudan (*continued*)—Provisions and supplies—Liquids—Difficulties with camel-drivers and servants—Early starts imperative—Improvidence of some travellers—The interior no place for white women—Danger from proximity to wells—The tick—Tips for rapid travellers—The *hamla*—Negligence of native attendants—Quaint hospitality of natives—The village sheikh—His utility—The value of a "gift"—The Hadendowa's idea of a "present"—A sheep sacrifice—Danger from sunstrokes—How best to avoid them—Heat-strokes—Vegetation of the desert—A waterless country—Bird and plant life.

IN the matter of purchasing tinned and bottled provisions it is desirable to allow for an uncertain number of days when no provisions of any kind (beyond what may fall to the guns on the road) can be purchased. Neither milk, eggs, flour, nor fresh vegetables can be depended upon. The careful traveller will therefore supply himself with all such necessities in preserved, bottled, or potted form—a generous quantity of biscuits (especially of the milk, toast, and rusk variety, to serve as a substitute for bread), milk in powder or liquid form, butter, assorted meats, soup squares and essences, meat extracts, tinned fish, potted vegetables, preserved plums, ginger and chocolate, a liberal amount of sugar, salt, pepper, and mustard (all of which are recklessly wasted by the ordinary Sudanese servant), candles, methylated spirits, and matches (preferably in small boxes so as to escape wholesale misappropriation), toilet and washing soap, talc powder, disinfectants, and, of course, a large quantity of tea, cocoa, and coffee. These latter are found acceptable at all times, and are easily prepared even by an inexperienced attendant.

The correct quantity of liquids to be taken is usually decided by the particular taste and the propensities of the

traveller. If a moderate drinker, he will find a bottle of whisky last him well over three or four days ; the liquor is sold actually more cheaply in the Sudan than in Great Britain, the most famous brands being purchased at 50 per cent below the prices ruling to-day.

This fact not unnaturally induces some travellers to lay in a larger stock than would otherwise find place in their equipment, and also leads as an undesirable consequence to its consumption in larger quantities than would be recommended in a torrid climate such as that of Central Africa. The male *habitués* of the Sudan find a single " peg " of good whisky and soda after sunset an excellent *apéritif*, and a little red or white wine taken at the evening meal as a refresher amply sufficient. A small quantity of cognac may also be carried as a corrective, in case of indisposition or faintness from the great heat.

As much soda and seltzer water, ginger-beer and ginger-ale should be taken as the baggage-camels can conveniently carry. As each animal should bear easily a load of 350 lbs., it would be possible to supply the commissariat with quite as bountiful a quantity of mineral waters as would be required on a long journey. And it is astonishing how thirsty one may grow after travelling for four, five, or six hours at a stretch through waterless desert-places, and how delicious a thing a draught of clear, sparkling mineral water may become !

Not the least aggravating experience of the traveller who goes on *saffaria* is the inertia and indifference displayed by the native drivers and servants. Much of the journey's success and practically all of its comfort depend upon an early start being made ; but in the dawning hours of the day the Arab is found at his worst. Usually a sluggard (the heat of the climate in which he lives sufficiently explains this), he evinces a rooted objection to rising in the still, cold hours of the dawn, preferring to lie snugly wrapped in his blankets, wherever he may happen to be passing the night, until after Phoebus has risen and warmed the atmosphere a little for him.

Although they are not called upon to carry out any modi-

fication in their usual scanty attire, nor troubled with the necessity of performing ablutions, nothing short of personal abuse, accompanied occasionally by a vigorous prod, will induce the average camel-driver to make a move, or one's travelling servants to commence their preparations for departure.

Awakened from their sleep, no matter if it has endured for as long as six hours or more, they become slothful, sullen, and quarrelsome, moving about their tasks with reluctance and much audible grumbling. Once, however, the troubles of loading up and striking camp are accomplished and the caravan is again *en route*, the men recover their customary equanimity and good temper, and soon afterwards break out into the monotonous, nasal, and unending chants which pass with them for "song."

During my several long *saffaria* journeys in the Sudan, I made a point of rising at 3 A.M., intending to start upon my road by half-past that hour; but upon no single occasion did I succeed in despatching the vanguard of my caravan until close upon half-past four. The second portion, comprising my companion, guide, and self, with our police escort, usually departed a little later.

Neither threats, bribes, nor the infliction of corporal punishment ever cured the Arabs of their inherent disinclination to commence their wanderings before daybreak. The traveller must possess his soul with all the patience that his philosophy can provide, and while refraining from allowing things to drift—for to relax his utmost efforts at persuasion would prove disastrous alike to discipline and progress—he must learn to bear his hourly disappointment at delays with calmness and resignation.

To travel with bad servants very often brings disaster, and, at the least, serious inconvenience and deprivation. Some two years ago two brothers, the Messrs. G——, met with some unpleasant experiences while travelling in the Sudan, mainly owing to their ignorance of procedure and to the rascally servants whom they had engaged. They were both enthusiastic ornithologists, and appear to have thought more of their sport than of providing for their own sub-

sistence on their travels. Among their provisions were found a number of perfectly useless articles such as three hundred bottles of jam, while such necessities as salt, mustard, flour, and other everyday requirements had been completely forgotten.

On the other hand they had provided themselves with many thousands of cartridges ; so generous was the supply that at the end of their journey they found two-thirds of their stock still unused ; these they presented in collections of hundreds to those of their acquaintances who would consent to accept them.

The sufferings of the young and thoughtless travellers were intensified by their not only having engaged rogues for their servants and camel-drivers, but by being unable to speak, or even to understand, a single word of Arabic. Eventually they were extricated from their supreme difficulties by the timely intervention of the District Inspector—an Englishman—to whom, it would seem, they had not even the intelligence to apply. Nevertheless, that amiable officer could, and most willingly would, have assisted them with expert advice, and maybe by procuring for them servants of experience and good character, had he but been asked.

It is a little hard to find place for much sympathy with travellers who proceed upon their adventures in an almost unknown and, at all times, difficult country in so crude and ill-considered a manner ; not alone do they themselves suffer much physical discomfort, but their experiences, the outcome of their own stupidity and lack of foresight, reflect indirectly and unfairly upon the country which they have selected as the scene of their amateur exploits.

I say emphatically that the little-frequented parts of the Sudan, the eastern and western portions particularly, do not as yet offer a suitable place wherein a white woman may readily travel, and no nice-minded female, possessed of a sense of strict propriety and sexual pride, would be found there, even if accompanied by a white male escort. There exist no opportunities for a woman to preserve the sanctities of common decency, surrounded as she is, and

must be in these desert places, by none but half—and sometimes wholly—naked savages, herself unable to command sufficient privacy, and exposed at all times to the vulgar and insulting criticisms of the Arabs, who would consider themselves free to display their contempt for any white woman who would thus voluntarily intrude upon them.

Any man who encourages or permits his wife or his sister to expose herself to this kind of treatment, notwithstanding the sound and earnest advice given to the contrary, deserves to be pilloried as callous to the first degree.

The traveller should insist that his servants do not pitch his tent or table anywhere within 400 yards of a well. They are apt to select such a site, since by so doing they may save themselves the trouble of carrying water any great distance. The ground near the wells almost invariably swarms with ticks and other noxious disease-carrying insects that have dropped from the camels and cattle, congregated around to drink. The horrid parasites fasten to and bury themselves in any flesh, human or animal, the result being both disagreeable and painful in the extreme. The tick belongs to the family of Arachnida, and is one of the most repulsive of creatures. To loosen its hold apply carbolic acid solution or alcohol freely to the spot affected, and a vigorous "pull." Sometimes the insect's legs come away and remain embedded in the skin. Antiseptics must be applied to prevent severe inflammation with intense irritation and sometimes open sores. Travellers should always carry small "Antiseptic Tick Cases."

When the *hamla* — composed of the transport or baggage-carrying camels and their attendants—is either sent on in advance or instructed to follow behind, it is advisable to render oneself partially independent of this travelling commissariat by carrying with one a certain amount of extra provisions for immediate use; for in a country where the transport roads are mere tracks, and these tracks sometimes disappear entirely when rains or sandstorms are met with, the *hamla* is apt either to go astray or to be seriously delayed upon its journey. Thus, many a traveller has passed foodless and shelterless through the

intense heat of the day and the desolation of the night in the desert.

I found that plenty of plain biscuits—rusks, water biscuits, and cracknels, in lieu of bread—tinned or potted meats, sardines, and cocoa were the best provisions for the purpose, since they require no great amount of preparation, and are very portable. A small spirit-stove (the compact set which usually comprises stand, stove, and kettle, etc., fitting into one another, and the whole into one case), with an ample supply of methylated spirits, is, of course, necessary.

It is remarkable how provoking the ordinary *hamla* attendants can become, especially to the inexperienced traveller, who, forgetting the natural slothfulness of the negroid race, attempts to introduce modern European "hustle." Not only do the men proceed about their duties in a painfully snail-like manner, stopping every now and again to argue with one another or, in the early morning, to visit the fireside in order to warm themselves, but they perpetrate the same silly mistakes from day to day without the remotest effort to profit by experience or to correct their methods.

I noticed, for instance, after eleven days' repeated practice of loading a particular baggage-camel (which carried part of my provision stores), that, upon every occasion, the native responsible placed a greater weight upon one side of the pack-saddle than upon the other; consequently, when he found the load hanging over dangerously upon one side he had to make the animal kneel, unload, and then load up again. This performance was gone through solemnly twice a day, without a break or an alteration, throughout the entire journey.

Another of the *hamla* attendants, equally unintelligent, whose particular duties included the unsaddling and releasing of the riding camels at grazing time, invariably allowed the animals to go free without first attaching the knee-hobbles, although these latter hung loosely upon the legs of each animal ready for attachment. As a result the whole herd strayed, as camels will, beyond the neighbour-

hood of the camp, and each morning and afternoon, when the journey had to be resumed, some missing animals had to be searched for and brought back, not unseldom from considerable distances.

Upon one occasion two camels remained lost during the whole night; then the native driver, with another man, spent several hours in looking for them, losing the greater part of their night's rest as a result. Nevertheless the very same thing occurred upon the following day, the camels being allowed to go unhobbled; precisely similar consequences again followed. With such evidences of stupidity—but two examples among many hundreds that could be cited—it is scarcely surprising that desert travelling in Central Africa proves slow and tedious, and is apt to get on the "nerves" of the ordinary individual accustomed to more expeditious procedure.

The Sudanese native has gained—somewhat undeservedly in my opinion—a reputation for displaying great hospitality towards the white stranger travelling through his country. True it is that upon learning of the presence of a white visitor in the district (and it is astounding how soon the news becomes generally known), a tribe will send by the hand of one of their number a sheep or a goat as an offering. The "gift," however, is really an object of barter in disguise; the donors believe less in the Biblical phrase of "The giver is more blessed than the receiver" than in the more prosaic, if less classical, adage, "Nothing for nothing, and d—d little for a halfpenny."

Upon one occasion—it was at *Thamiam*—while waiting the final preparations of my *hamla* for departure, a Hadendowa (native) arrived upon the scene conducting by the leg an extremely unwilling and furiously struggling sheep. The animal was promptly seized by one of my camel-men (they were all members of the same tribe), its throat was cut in a twinkling, and the body skinned and cut up all in the space of a few minutes. From afar I watched the gruesome proceedings, little imagining that this was *my* sheep and had been intended as a present for *me*. Nevertheless, so it transpired. The carving operations completed,

the naked and greasy Hadendowa visitor approached, and through the medium of one of my servants, who acted as interpreter, he informed me that the sheep was a "gift" to me; would I accept it and give something—no! not money, please!—in exchange? I pointed out that, at the moment, I possessed disposable nothing but what I needed for my immediate requirements—my pots, pans, and other camp paraphernalia and equipment. Money alone was therefore what I was prepared to offer, and after but a very perfunctory show of protest the "gift" was paid for. The amount was not large—in fact, but 5 piastres (one shilling); but the purchase did not prove quite so cheap as might appear, since, after the "donor" had calmly appropriated for himself all the tasty pieces—the head, the liver, the bowels, and other choice portions—and after the camel-men had selected *their* share, mine amounted to but half a dozen lean chops and the saddle.

The transaction brought to an end, the fully gratified Hadendowa would have grasped me by the hand; but here I was compelled to resist. The huge black paw, still deeply incrimined with the blood of the defunct sheep and thickly encrusted with an accumulation of ingrained dirt, proved unspeakably repellent, notwithstanding that several months' travel through the interior of the Sudan had schooled me against any feeling of ultra-squeamishness. The necessity of responding to the Hadendowa's invitation was therefore diplomatically and successfully shirked, and fortunately no display of ill-feeling resulted.

An agreeable personal experience occasionally attending European travellers in other parts of the Sudan is the attention paid by the sheikhs of the villages through which they may happen to pass. As soon as any European—or, indeed, a white-skinned man of any nationality—is seen on the road, the sheikh (or headman) makes a point of respectfully waiting upon him immediately he halts. Clad in his flowing robes and picturesque turban of white cotton cloth, the sheikh usually affords a pleasing spectacle, more especially when, as is frequently the case, he brings a tangible offering of welcome in the form of some excellent coffee,

ready prepared and savoury smelling, a supply of fresh milk, or, maybe, a few cackling chickens and a dish of fresh eggs.

The utility of the sheikh does not end here, however. He can, at a stretch, find a sufficiency of native labour and at least a supply of provisions for the journey ahead, both of which might possibly be withheld without his influence being exercised.

All that is expected in return for these attentions is some voluntary mark of appreciation in the shape of a pleasant smile and a friendly handshake, together with, perhaps, some modest payment for provisions which may have been actually ordered from the villagers.

The ready assistance and frank production of fresh provisions which are met with almost everywhere throughout Central Africa (some portions of Abyssinia, perhaps, excepted) contrast strongly with the hostility and niggardliness exhibited by the natives of many of the South and Central American States, who rigorously withhold all such from white people as a matter of principle and from personal dislike, and more particularly when the suppliants happen to be citizens of the United States, whose very name spells anathema to some Latin-American natives. This lamentable experience is not so much the outcome of ignorance or racial prejudice as the result of the brutal and often dishonest treatment to which the inhabitants of the Latin-American countries have been, and still are, subjected by certain adventurers from the United States who travel or habitually live among them.

Considering the recklessness which is widely exhibited by new-comers to the Sudan in regard to the character of their headgear, it seems remarkable that so few cases of sunstroke are reported. There can be no question, however, that many occur of which little is heard. It seems that few who have suffered care to admit the fact, since such admission not alone conveys a tacit acknowledgment of carelessness, but may hereafter be cited as a reason for any real or imaginary eccentricity exhibited on the part of the victim of a sunstroke.

Yet it is an extremely simple matter to avoid the danger provided proper and unceasing precautions be taken. A helmet or topee of pith and of large proportions, with an extended back piece or brim, no matter how hideously unbecoming it may appear to the wearer, is absolutely indispensable, and this must be worn from the rising of the sun to the setting thereof. After sunset a light straw or a Panama hat, or even no hat at all, may safely be resorted to.

The head should never be uncovered out of doors in the sunlight even for a moment, medical evidence proving that more attacks of sunstroke are encountered before the breakfast hour than at any other time. The air is then in its coolest and most refreshing condition, and the unwary traveller believes himself as safe in Central Africa as he would be in his garden in temperate England. Soon is he disillusioned, and one brief relaxation of the inviolable regulations laid down may well mean for this imprudent individual months of acute and unrelieved suffering upon a bed of sickness, or maybe a permanently impaired mental efficiency. Even in a single-roofed tent a head-covering should be worn, since the actinic rays of the sun—which may be neither heat nor light rays—can reach him during its great noonday intensity. Heat-stroke, the result of a disordered heat-regulating centre of the brain, and a different visitation from sunstroke, is also to be guarded against.

The greater part of the vegetation with which the traveller on camel-back meets upon his passage through the desert consists of thorn trees (*Rosaceae*) of a brilliant green, and resembling in colour and shape of leaf, as well as in character of trunk and branches, the familiar hawthorn or, as it is more generally called, may trec, indigenous to Great Britain.

So widely are these thorn trees dispersed, and so generally uniform are they in size, that the vast plain upon which they grow suggests a spacious and well-ordered English park. Some trees attain to a height of from 10 to 15 feet, and the branches have a circumference of 30 to 40 feet ;

others top the telegraph poles, encroach upon the track, and, unless removed, threaten, sooner or later, to obliterate it entirely. Besides imparting an agreeable appearance to an otherwise featureless and monotonous stretch of country, the thorn trees afford shelter to countless flocks of guinea fowl and to many different species of birds of brilliant plumage.

Some of the great stretches of country referred to are officially described on the maps as "waterless," while all caravans and travellers are cautioned that no water can be found anywhere between El Fau and Khor Abu Faragha, 60 miles distant. I cannot think this assertion is altogether accurate, for no such wide-spreading plantations of vigorous trees, some showing signs of great age, or so thick a carpet of close-growing wire grasses could thrive without there being present some sort of moisture. No dews, moreover, fall in this country, and the scanty rains occur but once or twice in the course of the year. How then can the brilliant green of the non-deciduous trees and the existence of so large a number of birds and small animals be accounted for?

It may be that no water has yet been *found*, but this is not sure evidence that none exists. Should a spring or a well be located in this district, it must greatly benefit the traveller, who views with dismay the prospect of several days' dry and tiresome journey provided with only as much water as he can carry upon camel-back and in the few small receptacles which he may happen to have with him.

Under these conditions the daily bath becomes an impossibility to the ordinary trekker, by whom even the modest use of water for his ablutions has to be carefully considered.

CHAPTER XXXVIII

Travel in the Sudan (*continued*)—Camels—The opinions of some distinguished travellers—Others of my own—A good camel and a bad one—The proper kind of saddle—Difference between hire and purchase—The *bagil*—Beware of the sheikh contractor—Rates of camel hiring—The vagaries of the camel—Camel brands—Native-owned camels—Father Ohrwalder's she-camel—Camel breeding—The camel's speed—Some notable records—Dr. Poncet's description of a camel's endurance—Buying and selling of camels—Camel tracks in the Sudan.

NOTWITHSTANDING the gradual introduction of the railway into the Sudan and the splendid natural highway which is provided by the Nile, navigable through some thousands of miles of country, the camel remains—and always must remain—the principal means of transport. The *djemal* of the Arabs and the *gamal* of the Hebrews is a member of the *Camelidae*, and is to Egypt and the Sudan what the llama, a near relation, is to Peru and Bolivia. The late Dr. Russell, correspondent of the *Times*, once described the camel as an “abominably ugly necessary animal,” while Palgrave, the famous traveller, who had ample opportunity of observing the creature during his romantic sojourn in Arabia, declared that “if docile means stupid, well and good; in such case the camel is the very model of docility.”

But, as the late G. W. Steevens observed, “it would be absurd to go to the Sudan without camels.”

According also to the late Bennett Burleigh, author of *The Khartoum Campaign*, 1898, and of *Sirdar and Khalifa*, the Arabs have a legend that the Archangel Michael, anxious to try his skill at creative works, received permission to make an attempt, and the camel was the issue of his bungling handiwork. “Poor brute!” observed that amusing writer; “his capacity for enjoyment is perhaps the most restricted

of the whole animal kingdom. Ferocious of aspect, with a terrible voice, he is nevertheless the most timid of beasts, and his fine air of haughty superciliousness is, like the rest, but a sham. It might be fancied that he is for ever nursing some secret grief, for he takes you unawares by lying down and suddenly dying. Yet that is ordinarily but his method of proclaiming an attack of indigestion."

While admitting to the fullest extent his extreme utility and indispensableness to the traveller who would wander in desert and waterless countries, the camel, to my mind, remains one of the most objectionable and repulsive animals in creation. In appearance he suggests a cross between a giraffe and a cow, with a strange resemblance, in certain points, to the fabulous sea-serpent. He grunts like a hog, stinks like a pole-cat, and is about as intractable by any means of kindness as a rhinoceros. He groans with dissatisfaction when he is loaded, and he snarls savagely when he is relieved of his burden; he spits at you when being fed, and moans most mournfully when being groomed. Nothing apparently affords him any gratification, and it is only his absolute lack of intelligence and natural slothfulness of movement that prevent him from breaking out into open rebellion against his taskmaster, and from pitting his great brute strength against the latter's intelligence.

I believe that camels exist which are less unpleasant in the opinion of some owners than others. I have even heard of some of these animals which were considered in the light of "pets," and I was told that Tommy Atkins, both in Egypt and the Sudan, often evinced a great tenderness towards certain of the beasts used in the Camel Corps during the operations of 1882 and 1898. This may well be, for the sunny nature and warm-heartedness of the average British soldier are so profound that he has been known to display a keen affection for so unresponsive an object as a wheezy old steam-pump. But, taken for "all in all," the camel is a thoroughly unlikeable creature, as ugly physically as he is repulsive temperamentally.

No one who has been compelled, as I and others have been, to spend many weary days and even nights upon the

back of a camel can fail to appreciate the enormous difference between a "good" and a "bad" mount. It is seldom ordinary travellers can test the former, a really good camel is rare—by a "good camel" is meant a trotting as opposed to a lolling or ambling animal, and no one who possesses such a treasure is disposed to lend or to sell it to a second party. Mr. H. S. Wellcome owns and uses at Gebel Moya some of the finest and most famous riding camels in the Sudan, and he admires the beasts. I have, upon a few occasions found myself bowling along at four miles an hour upon an almost perfect camel, whose gait was so even and whose disposition so placid that one readily recognised the sensation of "riding in an arm-chair."

Far more frequently, however, a cruel Fate ordained that I should suffer the purgatorial experience of jogging, bumping, and that nauseating rolling progression of the mass of clumsily constructed flesh heaving and lurching beneath me. From six to eight hours a day over a period of from thirty to forty days, with but few breaks between, of this kind of travelling would satisfy most people. I confess that I reached the stage of satiation considerably earlier.

Any traveller who contemplates a camel journey likely to endure for more than a few hours—and certainly upon a *schid* which runs into days—would be wise to hire or purchase—if he cannot borrow—a special European saddle. The native seat is a thing of physical torture, being made of hard wood, thinly covered—sometimes it is not covered at all—with one layer of leather or cloth, and unprovided with a particle of padding. There is nothing against which to rest the back, and after a few bumps and stumbles upon the part of the camel, the inexperienced rider commences to realise something of the agonies of the mediæval rack. On the other hand, a well-padded, well-built camel-saddle, especially one which is provided additionally with an ordinary but substantial pillow, is found to be perfectly comfortable; thus provided a traveller may pass through his six hours' daily trek and meet with little or no inconvenience; and he may even realise sensations of comparative enjoyment.

The hiring price of a riding camel, one which is expected to "trot" at a pace of from 4 to $4\frac{1}{2}$, but which seldom exceeds a pace of between 3 and $3\frac{1}{2}$ miles an hour, is, to unofficial travellers, 12 piastres (say 2s. 6d.) per diem. Baggage-camels, known as *bagil*, cost 10 piastres (2s.), the hiring of the driver and the animal's daily food (mainly consisting of any kind of grazing which it may happen to find upon the wayside) being included. Officials pay $9\frac{1}{2}$ and 9 piastres respectively, and they mostly secure the best class of animal available. Camel-hiring is done by contract, and the traveller who is not sufficiently fortunate to obtain some experienced advice and assistance when making his arrangements for a trek, should take particular care to protect himself against being cheated or misled. Camels may be purchased outright at anything from £10 to £15, but a high-class animal will always command £20, and even more.

The highest price, so far as I could learn, which has been paid for a Sudan camel has been £100. Some animals of special attainments have realised between £50 and £60, but, on the other hand, I witnessed at Kassala the purchase of an exceedingly fine young camel, which easily covered a distance averaging 6 miles an hour, for the sum of £10.

The late G. W. Steevens's description of his experiences when purchasing a camel graphically portray the peculiarities of that detestable animal. "With horrible noises," says the writer, "the old man (the owner) pulled his camel on its knees. The camel made still more horrible noises; it growled and screeched and snarled and brayed and gurgled out big pink bladders from its inside." Then, while being loaded with some light baggage, we are told, "all the men stood round and gabbled, and one-half the camels gurned and gnashed their teeth, while the neighbouring donkeys lifted up their voices and brayed like souls in torment, and when you moved to repulse an importunate Arab you kicked a comparatively innocent camel."

No one, however exalted may be his station, is entirely exempt from the vagaries of the camel or the visitations which his uncertain temper occasionally involve. Even

the ex-Governor-General (Sir F. Reginald Wingate), who when engaged upon his inspection tour usually travelled with a caravan comprising perhaps 150 camels or more, upon one occasion found most of his personal baggage, and no inconsiderable portion of his provisions, scattered to the four points of the compass through a stampede occurring among his baggage animals.

Many a painful and even dangerous wound has been inflicted through the bite of an angry camel, and it is upon record that an Arab boy, who had foolishly teased a particularly bad-tempered animal, had the whole of his face completely torn away by a single snap of the infuriated beast's powerful jaws.

The front teeth of the camel slant outwards, and his jaws move sideways like those of all animals which chew the cud. He possesses likewise the loathsome habit of vomiting his partly or wholly digested food full in the face of his rider or attendant or of any bystander, as well as other obnoxious practices which cannot well find fuller description in a decent publication.

Camel contracts for *saffaria* are usually entered into through the medium of the village sheikh, and one has to exercise great care that he be not left lamenting. Indeed, the hirer must continually bear in mind the axiom *caveat emptor*. The sheikh is often an unconscionable scoundrel, who, after receiving the full amount of the hiring-money agreed upon—so much per camel and per man—leaves the unfortunate driver without giving him his due proportion of payment or even his food, both of which provisions are stipulated for in the hiring agreement.

It has happened to me, as no doubt it has happened to others, that on the second or third day of the journey some of the camel-drivers have presented themselves in a very dissatisfied mood in order to complain that "their sheikh has neither paid them their share of the hire-money nor yet provided them with their rations."

It was therefore necessary, before the men could be induced to proceed upon the road, to make to them further liberal advances beyond the full amount already paid to the

sheikh. Recovery of the overpaid amount at the end of the journey is, of course, generally hopeless. All that one can do is to complain to the Governor or the Mamur of the province, who may have some control over the fraudulent sheikh with whom the agreement was entered into. Travellers, however, should leave nothing to chance; they should inquire at the commencement of the journey whether all of the men have been paid at least something on account towards their share, and if they have had provided their rations of food. It is also advisable to word the agreement with the wily and dishonest sheikh so that but one-half, or at the most two-thirds of the hiring-money shall be paid at the commencement of the journey, and the balance at its termination.

The camels belonging to the natives and Arab sheikhs—and most of the animals in the Sudan are thus owned—are branded by means of what is known as the *wasm* or tribal marking. On the exterior of the upper part of the right thigh two horizontal marks =; between the left eye and the bottom of the left ear a semicircular line; on the right cheek two upright marks ||; and in the case of cattle two upright marks || on the outer side of the right leg:—these are the markings used by the Shukrias, while other tribes make use of different brands easily recognisable.

The Kababish, Dar Homr, Beni Jerrar, and Dar Hamed Arabs possess large numbers of she-camels. These animals are never met with outside the desert, and are retained exclusively for breeding purposes. Numbers of young camels are killed, and their flesh, which tastes much like veal and is preferred to any other kind of meat in the Sudan, is considered a great luxury. Generally it is eaten by the natives entirely uncooked. During the long wars against the Egyptian Government as well as the internal disturbances between these tribes, their camels were almost exterminated, while in 1889 a cattle plague still further reduced the numbers.

The Gehena tribe also possessed at one time large numbers of camels of a curious dark-coloured breed, which Father

Ohrwalder, the Austrian missionary, noticed while he was a prisoner at Omdurman, where thousands of these animals were bought and sold at low prices. The same authority mentions that the Kababish tribe, who occupied the desert between Dongola and Kordofan, at one time possessed thousands—he says “enormous quantities”—of camels with which all the carrying trade between these two places was performed. The unfortunate Father, who spent ten wretched years in captivity as the Mahdists' prisoner, finally made his escape upon a camel. Of that which was ridden by his guide he tells us: “He was mounted on a she-camel which the commander had supplied, and she gave us plenty of milk. A few days before starting her little baby camel had died; the owner had skinned it, and now, whenever we required milk, we had only to stretch out the skin in front of her and let her smell it.”

That the camel is not altogether the sluggard in pace that he is reputed to be is proved by the remarkable speed which he can attain after regular training. It has been customary in the Sudan, as in some other portions of the world where “the ship of the desert” finds general employment, to enter the animal for speed races. One such competition over a distance of 10 miles was won by a camel which reached the winning-post within thirty-nine minutes, giving a mean speed of 15 miles an hour, while over a second trial distance of 50 miles the average speed attained was over 11 miles an hour, the camel covering it within four and a half hours.

Dr. Poncet, the French physician who travelled through the Sudan in 1898, declared that he was informed by the brother of the Patriarch of Ethiopia, his travelling companion, that “having twice made the journey from Selyma to Sudan through the country of the Negro's, and having each time spent forty days in passing the Deserts, which lie in the road, the Camels of that Caravan had neither eat nor drink during that whole time. Three or four Hours Rest in a Night suffices them and supplies the want of Food, which you are not to give them, before you have watered them, because they would otherwise burst.”

Although camels are used generally in the Sudan, they are by no means the only or the best kind of animals employed for transport. In some parts of the country, especially in the Kordofan district, bulls are used (as in the Malay States), and they are found, although slow, very valuable beasts both of burden and traction. The bulls always travel better at night, and need at least five hours' grazing. The speed attained cannot be reckoned upon at higher than $2\frac{1}{2}$ miles an hour, which is also the rate achieved by the average *hamla* camel.

It is inadvisable and unnecessary to purchase bulls or mules, just as it is unneedful to purchase camels, when required, since both classes of animals can always be hired locally. Naturally, the traveller who chooses to buy his transport animals outright secures a better choice of beasts, but there is always to be considered the important question of the disposal of the animals after the trek is finished.

One is told that it is generally possible to find a purchaser for transport camels and donkeys, and—in the country where they are used—of mules and bulls. But the purchaser, if he be found at all, recognising the difficulties of the vendor, and profiting thereby, will offer him merely a small portion of the real selling value. Never is the position of buyer and seller more markedly defined than in connection with transactions of this kind, not alone in the Sudan but universally.

It is essential to make as careful a selection as possible of transport animals, for they are called upon occasionally to journey over some very bad country. Camels, for instance, are found to be practically useless upon stony or continuously hilly tracks, while even sure-footed mules have at times to be completely relieved of their loads, as for example upon the trek from the Sudan to Abyssinia, between Adis Abbaba and Gallabat (*via* Gojjam and Lake Tsana). Here packs have to be carried by men up steps which are cut in a bank some 40 feet high. Other tracks, like those encountered between Sofi and Khor Tomat (in the Kassala Province), descend by tortuous twists and turns—most confusing to the inexperienced traveller—to the

river-bed, and so on towards the steep ascent upon the opposite side. Although some efforts have been made to smooth out the most dangerous of these camel-tracks, for the most part the country has been left as Nature made it, the whole district having at one period been a vast watershed of extraordinary appearance.

CHAPTER XXXIX

Sport in the Sudan—Vast area of the country—Enormous distances to traverse—Value of route maps—Government publications—The Survey Department—Trekking by sportsmen—*Hamla* arrangements—Native guides—Their value as trekkers—Lost in the desert—Some disasters—Dangers of the bush—Loss through disease—Abundance of game—Destruction of elephants by natives—Better supervision desirable—The Game Preservation Department—Official handbook for sportsmen—Difficulties to be guarded against—“*Notes for Sportsmen.*”

THE Sudan is a country of vast distances—a feature more pronounced, indeed, than in any of the other countries that I have visited, except, perhaps, those of Brazil and Mexico—as may be believed when the area is known to be 1,014,000 square miles. Thus the Anglo-Egyptian Sudan is considerably larger than all Germany and the whole of her former possessions. Some of the provinces form large territories in themselves, such, for instance, as Darfur, which comprises an area of some 150,300 square miles, and Dongola with its 124,300 square miles, the Bahr-el-Ghazal, which claims 114,100 square miles, or, again, Kordofan,¹ which until recently had an area of 131,510 square miles and now measures 113,700 square miles. To reach one centre from another naturally needs much tedious travelling by river or road, or by both, and only partially as yet by the iron rail. Some of the more considerable distances by river are those traversed between Khartoum and Damietta, a journey measuring 1917 miles, or that between Khartoum and Cairo, which exceeds 1750 miles. The longest continuous railway journey is that from

¹ From January 1, 1914, Kordofan was relieved of 31,510 square miles of its area, which portion of it went to form the new province, called the Nuba Mountains.

Halfa to Khartoum, a distance of 579 miles, and thence to El Obeid—the latest extension of the line to be completed and opened to traffic—a farther 428 miles.

When we come to consider road travelling, the vast area of the Sudan—that is to say, that portion of it which is administered by the Anglo-Egyptian Government—can better be appreciated. Between Assiut and El Fasher (Arbain) the road runs for over 1000 miles, while between Wau, the headquarters of the rubber industry, and Hofret-el-Nahas the distance is one of over 400 miles. There are other freely used camel-routes exceeding 400 miles—for instance, the road from El Obeid to El Fasher, which is 446 miles in length; and since the rate of road travelling hardly extends to 25 miles a day the duration of the majority of road journeys may be realised. Carrying in mind these figures of distances and duration of ordinary interior journeys, the great difficulties in administering a country of such immense extent may perhaps be partially understood.

Railway and steamboat travelling have often been described, but, so far, the actual experiences of a traveller who has crossed the Sudan desert on camel-back have been lacking in any publication that has fallen into my hands. Yet the traveller who would see this fascinating country in its most attractive and least known aspects must leave the beaten and iron tracks and wander away into the interior.

Provided with his maps of the country through which he proposes to pass, the traveller may leave the rest to his guide and camel-men, who will be generally well able to supplement—from their own knowledge of the country—whatever information the route maps may lack.

Theoretically, trekking should not exceed six hours a day, a duration which is considered sufficient for both man and beast. As mentioned previously, the early hours of the morning—between 3 and 4 A.M.—should be chosen for the first portion of the journey, and the late hours of the afternoon—4 to 7 P.M.—for the concluding portion. Practically, however, it is seldom possible to adhere to these arrangements, since attendant circumstances frequently forbid.

Apart from the difficulties of inducing the average Arab camel-man to start at so early an hour as 3 A.M., the arrangements must be made subordinate to the character of the halting-places chosen—some consideration being, likewise, devoted to water and shade. Thus, the contemplated early trek of three hours lengthens into one of perhaps five or six, while the evening journey may have to be postponed on account of the appearance of a late moon. The regulations above referred to can only be accepted as an approximate basis upon which to work ; deviations as time and circumstances demand must be allowed for.

A great—perhaps the greatest—difficulty confronting even the experienced traveller upon trek is to keep in touch with his *hamla* or baggage camels and servants. The ideal arrangement is, of course, to despatch this contingent ahead, so as to have the next camp prepared for the traveller's immediate occupation upon his arrival at a somewhat later and more convenient hour. Unfortunately, however, in nine cases out of ten this arrangement proves impracticable. To move off with the equipment means depriving the trekker of his bed, of his washing apparatus, and of every movable thing that his camp contains ; he is thus rendered so uncomfortable that he finds it best to move along at the same time as his caravan.

Then, again, he probably travels (even on the slowest trotting camel) at a speed of 4 miles an hour, while his *hamla* crawls along at a rate of $2\frac{1}{2}$ miles ; thus he out-distances his equipment upon a 12- to 15-mile *schid* by several hours, and must perforce halt anywhere—sometimes upon a perfectly shadeless spot in the middle of a scorched desert—to await the arrival of his slowly progressing *hamla*. The only way to obviate this inconvenience is to provide oneself with a double equipment, one to precede and the other to follow the trekker upon his progress. To none but the extremely wealthy and luxurious traveller, however, would such a procedure become possible ; the average trekker in the Sudan, being far from wealthy, soon learns to dispense with any kind of luxury.

It is to be remembered that there are but few made

"roads" to be found in the Sudan; the tracks, on the other hand, are both numerous and usually well defined, by reason of the cattle, camel, and human footprints left in the soft yielding sand, or by means of the readily traced crushed grasses or displaced stones. During the rainy season, however, all such signs are completely obliterated, and the traveller who selects this time of the year for his peregrinations (and some cannot avoid the necessity) must entirely depend upon the intuition and the craft of his nativeservants.

Occasionally, however, these latter are grievously at fault; it has happened to many—it has happened to me—notwithstanding the most careful and definite instructions as to the exact rendezvous—that one's *hamla* has failed to keep in touch, with the disagreeable consequence that one has found oneself at the close of a long and trying day without a single article of equipment, deprived of even a scrap of food to eat or a drop of water to drink, and faced with the unpleasant prospect of passing the night in the open desert with nothing but one's camel-saddle and sheep-skin to repose upon.

In spite of these occasionally unpleasant experiences, it is scarcely possible to undertake any road travelling in the interior of the Sudan without learning to admire the skill and dexterity with which the natives—especially the Sudanese police—unerringly find their way in the dark. Even in the broken and irregular river-beds, with their countless tortuous ravines and intricate ascents and descents, the average Sudanese guide will pursue his way almost without pause or hesitation. Sometimes, indeed, he will select the wrong entrance or exit—or, maybe, it is but the less acceptable of two alternative paths which he finally chooses; but by day or night, in rain or sunshine, he continues on his way without a halt. He exemplifies the motto—*aut inveniam viam aut faciam*. One seldom hears of a native losing himself, although his wanderings may perhaps endure from the beginning of one year to the end of another.

Among the Sudanese tribes, especially the Beni-Ami, the Hadendowa, and the Baggara, may be found some of the most skilful trackers in the world. No Red Indian,

woodman, or Australian aborigine could ever have been more sure of picking up and successfully following a trail than these Central African natives who pass their whole lives in driving, losing, and again finding the thousands of roaming animals upon the produce of which they maintain their existence.

I have likewise been astounded at the facility with which the *hamla* leader, usually a raw savage, unable perhaps to speak any dialect but his own, will find his way, even in the blackest night, over a track which, in broad sunlight, becomes distinguishable only by following carefully with the eye the pad-marks of camels which may have previously passed. Upon the stony and grass-covered places those marks become rapidly obliterated ; but the Sudane trackers will recognise them almost instinctively, and it is but seldom that they err in their course.

Possibly they also take their bearings from prominent objects located near or at a distance—such as lofty trees or high mountains ; but this cannot be so in all cases, since trees are apt to be cut down by passing caravans for firewood, while mountains, upon occasions, become enveloped entirely by mists or clouds. However it is that they manage to steer their course, the fact remains that the majority of the native guides will find their way across a desert track—which traverses running streams, dry river-beds, and sandy wastes—without a break and without a single deviation. They can apparently see in the dark as clearly as a cat, knowing nothing concerning the points of a compass, and merely calculating time and distances by the hourly passage of the sun across the heavens.

Instances have been known of inexperienced persons, when travelling either alone or in company, having lost their way, and perishing as a consequence. The late Mr. E. M. Knight¹ has told us how his military escort became completely lost in the desert between Wadi Halfa and the Wells of Murat, in 1896 ; after three days' hopeless wandering they were rescued from certain death by a relief party which went in search of them.

¹ Author of *Letters from the Sudan*.

It is also related that a whole section of the Arab battalion were lost in the desert and died miserably of thirst as the result of a miscalculation of locality upon the part of their commanding officer, an Egyptian; their skeletons were found some months afterwards by a belated relief expeditionary force of Egyptian soldiery.

Nothing would appear easier than to lose one's way upon the boundless grass plains or the limitless sandy wastes of the Sudan. To the ordinary eye the surrounding scenery offers absolutely no landmark, every aspect taken from indeed any point of view appearing precisely similar. Once the traveller has wandered from the usually but slightly defined track and has entered the bush, he becomes as completely lost as if he were in the Sahara Desert or a Dahomey jungle. No ordinarily prudent traveller would think of leaving his caravan and entering the bush in pursuit of game without being accompanied by a native servant, or by one of his own camel-men. Even then he would not be absolutely certain of finding his way out again very speedily, although his chances of doing so would naturally be greatly enhanced. In some parts of the country there are to be found but few, if any, natural eminences from which a lost or bewildered traveller might be able to take observations; the lack of water and the presence of numerous beasts of prey—lions, leopards, and hyenas—would likewise render any considerable delay in regaining the protection of his caravan exceedingly hazardous.

The Arabs, like their Mohammedan brethren in India, must be allowed to exercise their will with all animals shot by the Christian; that is to say, they must be permitted to cut the dying—or the dead—animal's throat, and at the same time mumble an invocation to the Deity. It will not suffice to perform this act of mercy yourself; you would merely be polluting the flesh of the slain, and not one among your servants would consent to eat of it. The Mohammedans, by cutting the throat of the quarry, somehow comfort their consciences, for they profess to believe, like pious Jews, that "God will set his face against the soul that eateth blood, and will cut him off from among his people."

None the less these same conscientious worshippers of Islam will surreptitiously consume any ham and champagne that you leave about. I have even detected them on many occasions greedily consuming pork sausages and sampling the whisky.

It is lamentable that the natives are still enabled to destroy a large number of elephants annually by burning them alive; although measures are now being taken by the authorities to put a check upon this barbarous practice it continues in certain districts—especially in those of Mongalla and the Bahr-el-Ghazal—where the immense extent of the unsettled and unadministered territory renders anything like supervision and control difficult, if not impossible.

A body of natives, having followed a herd of elephant to some favourable spot where the grasses grow tall and the trees are numerous, they surround the unsuspecting animals upon all sides. At a prearranged moment they set fire to the dried and easily inflammable material at each of the four corners. In a very short time the herd finds itself completely surrounded by a living wall of flame which reaches a height of some 20 or 30 feet into the air, belching forth volumes of thick black smoke. Always in deadly dread of fire, the mere smell of which drives them frantic, the unfortunate beasts can do nothing but stand as if petrified and watch their fate creep nearer and nearer; some few among the herd may, perhaps, break through the ring of flames scorched and maybe permanently blinded, but the majority—and it must be remembered that an elephant herd may number anything between 50 and 200 animals—perish miserably. The bulls' tusks alone are sought for, and thus innumerable cows and calves are sacrificed uselessly in the holocaust.

It is sincerely to be hoped that the Government, both for the sake of humanity and discretion, will redouble its efforts to put down so abominable a custom, and will severely punish the culprits—not merely by the infliction of a tribal fine, no matter how heavy—who are convicted. Whole villages or tribes might have to be penalised, but it

is absolutely necessary that vigorous measures should be adopted and a severe example made.

Between the years 1906 and 1911 the amount of ivory exported increased from 44,880 lbs. to 220,383 lbs., and of this total 50 per cent was freshly killed ivory. The number of elephants still existing in the Anglo-Egyptian Sudan is officially estimated at "reaching five figures," whatever that may mean; but in the provinces of the Upper Nile and Kordofan, at least, the quantity of big game is markedly decreasing.

That the slaying of elephants is considerable, independently of the above-mentioned reckless slaughter of which no record whatever is obtainable, is proved by the returns of ivory made for the nine months of the years 1912 and 1913. During the first-named period the quantity totalled 76,676 kilos, and was worth £E67,318; for 1913, 98,820 kilos were sold, worth £E90,057, thus showing an increase for the year of 22,144 kilos in quantity and of £E22,738 in value.

For the year 1914 the amount of ivory exported shrank to 69,632 kilos in weight and to £E64,744 in value. Naturally such a trade would be adversely affected by the European war; during the following year a small but appreciable improvement set in, but in 1918 the quantity was no more than 39,453 kilos, representing a value of £E35,624.

During 1914, at the invitation of the British Government, a conference was held in London to consider the drafting of international regulations for the protection of the elephants and rhinoceros in Africa. The assembly arrived at an agreement, which when ratified by the Governments concerned should prove a substantial step in advance towards saving elephants from wholesale destruction. The Conference met under the presidency of Lord Chelmsford, and comprised delegates from Germany, Belgium, Spain, France, Great Britain, Italy, and Portugal, thus including all the Great Powers which were directly interested in Africa. It agreed to recommend to the respective Governments the formation and maintenance of absolute sanctu-

aries for elephants and rhinoceros in suitable localities. The shooting of the animals is permitted only on licences, the conditions of which are made as nearly as possible identical in the different territories. Complete protection is aimed at for the rhinoceros for a number of years, and the standard weight for the export of ivory is now raised to 10 kilos or over 22 lbs.

The Game Preservation Department of the Sudan Government was for long under-staffed, and, as a result, proved incapable of controlling the reckless destruction of game. By means of a later regulation the efficiency of the Department was increased.

Mr. A. L. Butler, who acted as Superintendent of the Game Preservation Department from the commencement of 1901, resigned his position in the month of September 1915, thus having rendered over fourteen years' service to the Administration.

If the Government wish to continue to attract to the Sudan sportsmen, who are yearly increasing in number, it is imperative that the strength and efficiency of the Department (by whatever title it be known) especially charged with their interests should be reinforced and properly maintained.

The sportsman, whether he be but a casual visitor passing through for the first and possibly the last time, or the official temporarily resident in the country, is naturally desirous of leaving behind him a perfectly clean and honourable record as a law-abiding individual, quite as valuable as the reputation of a mighty Nimrod. To avoid the several pitfalls awaiting him, any one of which might imperil a blameless record, it behoves the new arrival to study with particular care and attention the provisions of the existing laws and ordinances which cover the preservation and the killing of game.

Fortunately there has been provided a way out of the apparent complexities regarding the "preservation of animals" by means of an explanatory handbook, not perhaps altogether free from mistakes. It is modestly entitled *Notes for Travellers and Sportsmen in the Sudan*,

and has been compiled in the office of the Sudan Agent at Cairo. The intending sportsman would do well to consult this brochure exclusively and leave the more complicated "Preservation" publication until a later date. He will find herein not alone most of what he must know, but this same knowledge briefly yet clearly explained, each page of the booklet being conveniently indexed by marginal notes. A number of appendices from "A" to "M" afford a large amount of minor useful information.

Thus Appendix B summarises, free from all technical phraseology, the introduction into the country of firearms and ammunition; Appendix C, which deals with the same subject, is perhaps not quite so clear; but Appendix F shows, with commendable brevity, exactly how many and what kinds of animals may be killed by the holder of a £50 licence, and no longer leaves him to flounder in a sea of doubt upon the subject. Appendix J is informative respecting the number and character of the export taxes imposed upon living animals, including the lordly and cumbersome elephant, which, it appears, may be carried home at the modest price of £E24 (£24: 12s.), and the king of beasts, almost a drug in the Sudan market, transported at the still more favourable figure of £E1.

On the other hand, the giraffe may not be disposed of under any circumstances, being included in Class I., which precludes any traffic in "hides, horns, flesh, or trophies," or in certain carefully protected animals and birds. Appendix L affords the student-sportsman brief but sufficient instruction regarding the local names for practically every wild animal and bird to be found in the Sudan, by no means an easy subject to explain, since the names of most wild creatures vary widely in different districts. A possible danger awaiting new arrivals, who may not have previously made themselves acquainted with the restrictions and provisions referred to, is found in the fact that the Governor-General of the Sudan may, by order, at any time—it does not necessarily imply that he will—remove any animal or bird from one class to another, or include any animal or bird in any class, and there are four different

classes. The last of the appendices—M—provides a list of the game animals of the country, accompanied by a brief sketch of the range of each.

It would appear that there are three classes of sporting licences necessary in the Sudan: (1) An ordinary gun licence, which costs 50 piastres (say 10s. 3d.), and which does not permit the holder to hunt or kill anything larger than a gazelle; (2) a £E5 licence, which entitles the holder to kill—or capture if he can—a certain number of hippopotami, ibex, wild sheep, wart-hog, all kinds of gazelles, including the smallest of the antelopes; (3) a £E50 licence, which carries permission to kill “a limited number of animals,” except those—and their number is not inconsiderable—which are protected and mentioned in detail in a special list.

CHAPTER XL

The Sudan as a tourist centre—Combating geographical ignorance—Ordinary type of traveller and tourist—Facilities and difficulties—Governmental assistance—Comfort and safety assured—Pleasures and pastimes in the capital—Khartoum Golf Club—Horse shows—Public support lacking—Military and civilian co-operation—Winter race meetings—The lure of big-game shooting—Sudanese armory—Resemblance to ancient Greece—Peculiar attractions of the Sudan.

Look at the map of Africa. Since the world-famous aerial flight from Cairo to the Cape there is no excuse for any one now being ignorant of the topographical features of the Dark Continent. Trace your finger down the course of the Nile from Cairo until you come to Wadi Halfa. That is where the Sudan begins; and if you know more about that country than the majority of individuals, you will have learned that the superficial area of its territory exceeds 1,000,000 square miles.

Quite a large proportion of people, otherwise intellectual and well read, still possess but the vaguest notion of the precise locality of the Sudan, being doubtful whether it is in Europe, Africa, Asia, or America. "The Sudan," observed a lady of my acquaintance recently, in a London drawing-room. "Oh yes; somewhere in Egypt, isn't it?"

Even that guess was somewhat nearer geographically than that given by some people who imagine the Sudan either a South American Republic or, more happily, one of the British West Indian Colonies. It is but seldom you find a really well-informed geographer—far more frequently, indeed, does one come into contact with those

Who force whole regions, in despite
O' geography, to change their site.

Of enthusiastic travellers and tourists, however, there is no

lack. Every man and certainly every woman is possessed of a tourist soul, which may be interpreted as an understanding and appreciation of foreign climes with their countless romantic associations. Some among us may not be conscious that this is the case, and may even refute the suggestion as absurd; the stay-at-homes—nearly always from necessity, seldom from choice—declare themselves perfectly content with their own little country—"England is good enough for me," they protest, as no doubt it is *faute de mieux*. But give them a chance of wandering beyond the narrow confines of this tiny island, and once open to them the entrancing gateway to the world beyond, and how many could hold back upon the threshold or repeat the stale fiction, "England is good enough for me"? England is good enough for most of us—no one can deny it; and never does it appear so good as when one returns to it after a more or less lengthy absence. Many of us may agree with the clown Touchstone when he declared in *As You Like It*, "When I was at home I was in a better place"; but few of us would care to remain there for ever.

Travellers of to-day, it is true, are not made of the same stuff that our forefathers were composed of. When they went upon a journey—if it was only from London to Liverpool—they made their wills, and solemnly entrusted their bodies and souls to the mercy of the Almighty. Neither are we framed to withstand the innumerable inconveniences and trials which a voyage abroad entailed in the days that are gone. Nowadays the tourist must travel in the utmost luxury and in well-fed comfort. The raging of the elements around a 40,000-tonner in mid-Atlantic means nothing to the pampered saloon-passenger; he may, indeed, be in absolute ignorance of it. Hardly a liner bound for the other side of the world proceeds upon its way without a full complement of luxurious equipments such as our forefathers would neither have believed possible nor have deemed necessary.

On the other hand, there are not lacking men and women who entertain a profound contempt for the too easy form of travel, and who honestly yearn for troubles, trials, and dangers. Day by day, as the world becomes more civilised,

more and more opened up by means of every kind of locomotion—railways, steamboats, motors, and aeroplanes—this craving for sensational travel becomes increasingly difficult to satisfy. Still more difficult is it to indicate a country where travel and adventure may be met with of a character likely to suit at the same time the views of the simple and unromantic tourist and the desires of the excitement-loving traveller. There exists, however, one such country, and that is the Anglo-Egyptian Sudan. To those who proceed thither the journey appears no fool's errand, but rather a source of education and pleasurable interest almost impossible to meet with in any other part of the world.

Travel in the Sudan may be divided into two parts—as distinct in themselves as are the pursuits of walking and flying. One may now visit a great part of the country seated in a luxuriously equipped train, furnished with all up-to-date catering arrangements, or reposing in equal comfort upon the deck of a smart, swift-moving, well-appointed steamboat, the protection afforded by which the traveller need not once leave if he feels disinclined. If the hotels met with do not rank with the best within his European experience, at least they are clean, sanitary, and commodious in regard to room space. The tourist is, moreover, within the radius of the wireless telegraph and telephone from Europe practically from one end of his journey to the other. These, then, are among the attractions upon which the ordinary traveller may rely if he wishes to keep to the beaten track, a track which the Administration of the Sudan has taken great trouble to render as safe as any main thoroughfare in London town. Indeed, from a traffic congestion or possible collision point of view the Sudan is a great deal safer.

To the traveller who expects and demands upon his expeditions abroad that he meet with no interruption in his daily pursuit of such sports as cricket, football, golf, tennis, and rackets, the Sudan offers unlimited opportunities for the indulgence of his pleasures. One would not, as a general thing, recommend a country*whereof the climate is full-tropical for the pursuit of such violent games ; but

the enthusiast knows no restrictions in regard to heat or cold, and he will find many Europeans in the Sudan to share his ardour. Practically all the official and most of the unofficial members of Khartoum, Atbara, Port Sudan, Wad Medani, and El Obeid communities have their polo, golf, tennis, and rackets meetings, while the game of cricket, although seldom pursued with avidity in the Sudan itself, has its numberless votaries who swarm to Lord's in the leafy month of June to witness the annual contest between Egypt and the Sudan and the M.C.C.

The Khartoum Golf Club, whereat European visitors are made welcome, has usually an interesting programme during the season, including a handicap competition. Then there are enterprising sportsmen to be found among both the official and non-official element, who, during the month of January, organise a horse show, a function which is usually held amid great splendour in the beautiful grounds of the Gordon College at Khartoum. Upon this occasion an altogether excellent assembly of Syrian, Barb, Kordofan, and Abyssinian ponies is got together, the mares' and foals' class gaining the most attention, especially since the presentation of a thoroughbred stallion by the late Earl Kitchener.

A horse show naturally suggests a race meeting, and here again the "Khartoumers" can put forward as attractive a programme of events as any other British colony of horse-lovers. And where will you find, all the world over, any body of Britons—large or small—who do not take an interest in the splendid animal which, by Christians, has always been regarded as the emblem of courage and generosity?

That the military element should particularly distinguish itself in this direction can be well understood, for has not the horse always stood first among animals in the affections of our soldier lads? The Black horse for the 7th, the Blue for the 4th, the Green for the 5th Dragoons, and the White for the "King's," are still the badges worn by those regiments. Well, you will meet with horse enthusiasts in Khartoum right down the list from His Excellency the Governor-

General to the lowliest "Tommy" among the British troops quartered there.

I cannot maintain that it would be worth while coming out to Khartoum for the special purpose of attending a winter race meeting; but undoubtedly it is desirable, when once you are there, to remain for it. The only drawback to the first winter meeting is the date upon which it is held, usually towards the middle of December, when the great body of tourists have not yet arrived, and but a proportion of the officials have returned from their leave in Europe. That the public attendance could easily be doubled if the winter meetings were held, say, upon some day towards the commencement or middle of January seems tolerably certain.

Neither do the attractions for tourists end here; aviation had taken a complete hold of the popular idea since the visits of the unfortunate young Pourpre, the French airman, F. K. M'Clean, the first man to fly up the Thames, and Schneider, who introduced what he called his "glider." The unsuccessful but plucky exploits of Dr. Chalmers Mitchell and his companions merely added to an already keen interest.

Then there is the British Football Club, which meets teams composed of the military quartered at Khartoum, and the Greek Athletic Club, which gives displays of greater or less attractiveness.

But, after all, it is for the unrivalled big-game shooting which the Sudan affords that the country is becoming increasingly alluring to tourists and travellers. Big-game hunting has increased remarkably of late years; even women—of a certain class—indulge in it; but when I see or hear of a female attired grotesquely in a man's shooting costume, with top-boots and gauntleted gloves, armed with a rifle, and invariably wearing a silly, self-satisfied smile in the stereotyped photograph for which they invariably pose, I feel shame that my countrywomen can so unsex themselves. *Cucullus non facit monachum.*

The pursuit of the big game has done more than anything to open up the interior of the Sudan.

The late Lord Kitchener secured the head of a remarkable "white" rhinoceros at Lado; the animal, as a fact, is almost black, only appearing to be white when seen in the brilliant sunshine. "El Lord," by which name the former British Agent in Egypt was known, possessed a fine collection of trophies, not all of which, however, were gained from his own gun, some being gifts (some say that they were "forced") from his official subordinates.

The collector of native arms and armour may find in the Sudan even to-day, scoured as it has been by innumerable connoisseurs, an almost exhaustless collection of weapons of all ages and descriptions. In many of the spears, arrows, bows, knives, and shields one may recognise distinct resemblances to some of the most ancient weapons known. Thus the Burun tribe, who are said to be related to the Berta, and who inhabit that part of the Sudan between the Dinkas of the White Nile and the Abyssinian frontier, carry long bows, wooden-pointed featherless arrows, and spears which strongly suggest the spear-heads of the Bronze Period, although in perhaps fewer varieties of form. The strongest resemblance is found in the length of the blade, about 19 inches. Some of the swords recall both the shape and the size of the weapons of the heroic age of Greece, as described by Homer—double-edged, long, sharp, and cutting. Just as in the Homeric combats men fought with spear, lance, and javelin, so the murderous tribes of Central Africa seem to attack and kill one another with horrible weapons of similar shape and deadly effect. The bow of Pandarus, leader of the Lycians, is said to have been made of ilex-horn and strung with sinews; I have seen some Sudanese arms bearing a very close similitude. Again, among the Dinkas of Bor one sees bows (*danga*) and arrows (*juet*) as well as lances not at all unlike those wielded during the Bronze Age of Central and Northern Europe. The elbow-knives worn by the Golas and the Bongos are as deadly in their practised hands as were the *kukris* used by our Indian troops against the Germans, who would seem to have feared them as much as Tarentines and Etrurians dreaded the broadsword of old Rome.

Among the Anaks, a very fine race of men only a little inferior to the Nuers from a physical point of view, is found a curious weapon met with in no other part of the Sudan—a spear, the head of which is manufactured from the leg-bone of the giraffe, polished down to between three-quarters of an inch and one inch in diameter, and sharpened to a fine point.

Practically all the tribes carry shields—oblong, round, or oval in shape—and made of elephant or hippopotamus hide. They are immensely resistant and almost indestructible. On the other hand, they do not possess great length, being in this respect unlike that of Hector, which according to Homer reached from the shoulder to far below the knee.

Perhaps the most interesting of all the armed tribes are the various Baggara, who live chiefly in Southern Kordofan. In former days they ranked as the chief slave-raiders, and were invariably heavily armed with large stabbing spears and small throwing spears; they were likewise the proud owners of Remington rifles during the days of the Mahdi. The richer members of the tribes wore chain-armour, supposed to have been handed down from generation to generation since the days of the Crusaders. This armour is still occasionally to be seen worn; but rarely.

Sudanese chain-mail is the veritable armour of inter-linked rings, such as was generally adopted in the time of the Crusades, and in use until about the commencement of the fourteenth century. It consists of a short-sleeved tunic, reaching to the knees, and covered with variously shaped plates of metal. The short hauberk is confined by a belt about the waist. Unlike the mail armour which we see represented in the Bayeux tapestry, there is no mailed skirt worn nor yet the coverings below the knee known as the *chausses*.

There exists a keen competition among European collectors of ancient armour to pick up suits of Sudanese chain-mail, but the owners will seldom consent to part with them, no matter how tempting the price offered.

CHAPTER XLI

The fifteen provinces—Populations—Areas—Mamurias—Darfur—The Bahr-el-Ghazal—Sanitary arrangements—Sport and attractions—The Dinka and Zande tribes—Wau—Difficulties of transport and approach—Berber—Historical associations—Campaigns of 1884 and 1898—Under Mahdi rule—Destruction of towns—The industries of Berber—Cattle plague—Shendi—Biblical associations—Under British occupation—Metemneh—Dervish barbarities—Province industries—Sheep-breeding—Irrigation schemes—Pumping plants—Cotton cultivation—Basket weaving—"Dom"-nut trade—Atbara—Railway headquarters—The town—Sanitary regulations—The Church—Population.

THE Khedive, Ismail of Egypt first divided the Sudan into provinces, each of which was governed by a responsible and independent official (as Sir Samuel Baker tells us in his volume *Ismailia*) instead of serving under a Governor-General residing at the distant town of Khartoum. Commencing, however, with the time of the reconquest of the Sudan in 1898, the country had been divided, for administration purposes, into thirteen provinces; while from the first days of 1914, Nuba Mountains—formerly constituting part of the province of Kordofan—were separated, both financially and administratively; and in 1916 the former Sultanate of Darfur was incorporated, thus bringing up the total number of provinces to fifteen. Each province is divided, as shown in the subjoined table, into a varying number of Mamurias, each of which is placed under the control of a Mamur and of one or more sub-Mamurs. The approximate area of each province and its population are also shown.

THE BAHR-EL-GHAZAL PROVINCE

The Bahr-el-Ghazal—otherwise the "River of the Gazelle"—Province forms the south-westernmost portion

Name of Province.	Population.	Area. Sq. miles.	Mamuria.
Bahr-el-Ghazal .	1,000,000	114,100	Dem Zobeir Kafia-Kingi Lau Meridi Gnopp Meshra-el-Rek Mvolo Nyamiell Raga Rumbek Shambé Tembura Tonj Wau Yambio
Berber . . .	122,572	97,100	Abu Hamed Berber El Damer Shendi Wad Hamid Zeidab
Blue Nile . .	192,879	12,000	Abu Deleig Kamlin Managil Mesellemia Rufaa Wad Medani Town Wad Medani District
Darfur . . .	—	145,400	El Fasher Kuttum Nyala Um Kedada
Dongola . . .	141,170	124,300	Argo Debba Dongola Kerma Khandak Korti Merowé
Halfa . . .	38,325	112,300	Halfa Mahas (Delgo) Sukkot (Kosha)
Kassala . . .	84,000	46,000	Butana Gallabat Gedaref Hadendowa Kassala Mefaza
Khartoum . .	135,070	5,000	Geili Khartoum City Khartoum North Omdurman Rahad

Name of Province.	Population.	Area.	Mamuria.
Kordofan . . .	119,000	Sq. miles. 336,589	Ahu Zabad Bara El Obeid El Odaiya Muglad Nahud Um Dam Um Ruaba
Mongalla . . .	207,402	63,800	Aliah Amadi Bor Chanomori Duk Fadiat Kajo Kaji Kongor Loka Lyria Mongalla Nimule Opari Rejaf Tombe Torit (Latuka) Wurungwas Yei
Nuba Mountains .	268,086	31,560	Dilling Eliri Kadugli Rashad Sungikai Tagalle Talodi
Red Sea . . .	34,702	27,800	Akik Ghol Mohammad Port Sudan Sinkat Suakin Tokar
Sennar . . .	112,252	40,440	Dar Fung Dinder Karkoj Kurmuk Roseires Sennar Singa
Upper Nile . . .	303,470	36,000	Abwong Ayod Gambela ¹

¹ A trading post within the boundaries of Abyssinia, leased by the Sudan Government from the Abyssinian Government.

Name of Province.	Population.	Area. Sq. miles.	Mamuria.
Upper Nile . . (continued)	..	..	Kodok Longtaue Malakal Melut Renk Nasser Tonga
White Nile . .	155,000	14,700	Dueim Geteina Jebelein Kawa Kosti Rabak Tendelti

of the territory of the Anglo-Egyptian Sudan. It is essentially the country of the sudd, and the mass of vegetable matter which continually collected there, before the present Administration determined to reduce it, gave infinite trouble to early travellers, including Gordon and Baker. The whole region is intersected by many rivers, which thread their way from the great watershed between the French Congo and the Sudan—a district which is practically uninhabited on either side—upon their course towards the Nile. At one time dense forest covered, and in some parts still covers, this province; but fierce fires, of which traces may be found in almost every direction, have nearly cleared the country of its larger timber. The province has an unenviable name among European and Egyptian residents for disease and general unhealthiness, but undoubtedly an improvement has been effected of late years, since men have now learned through researches in tropical medicine to better protect themselves against the ravages of the mosquito and his deadly kindred.

To atone for its unattractiveness in this respect, the province offers a remarkable assortment of game for the sportsman's gun, as many as seven-and-twenty different species of wild animals being on the lawful "killing list," including the rhinoceros, the giraffe, the buffalo, the lion, the elephant, and the much-sought-after Mrs. Gray's water-buck.

The Bahr-el-Ghazal Province is divided into fourteen districts, which, again, are subdivided into twelve sub-districts or *mamurias*. The area is 114,100 square miles, and the population just 1,000,000. The headquarters of the Administration are at Wau, where the Governor and two Senior Inspectors reside. The natives are mostly of the Dinka and Zande tribes. There are, however, an enormous number of other tribes, and naturally much confusion prevails regarding languages—or dialects—and tribal areas. For untold generations these people have fought and killed one another, and they would doubtless do so to-day but for the strong deterrent arm of the Administration. Nevertheless, it takes the officials all their time and the exercise of all their patience and ability to effect a settlement of the numerous and ever-recurring disputes which arise and need adjustment. The area of the country occupied by the Dinkas alone extends to between 60,000 and 70,000 square miles. In their time these people have occasioned considerable trouble to the authorities, as when the whole tribe broke out into open rebellion against their new, and as yet untried, rulers. It occupied over a year upon that occasion to finally subdue the uprising.

The Zande is another large and powerful tribe ; the men are great hunters, the women being the agriculturists and bread-winners. Physically the males are well built and powerful, but they render their personal appearance repulsively hideous by the manner in which they dress their hair and sharpen their front teeth to a fine point till they resemble the fangs of a wolf.

Very few members of either tribe will consent to work regularly, the Dinkas especially being extremely indolent by nature. In the western portion of the province, however, the natives have found the value of money, and they now volunteer for work, the Zandes, in the south, following suit, although in a less marked degree. Some of the Agar section also occasionally present themselves for employment, but it is impossible to rely upon any permanent supply of labour, while of skilled assistance there is little or

none except in the districts situated around Wau, the seat of government, where the supply is found usually more easy.

Wau, the capital of the Bahr-el-Ghazal Province, is somewhat unfortunately situated. During a few months of the year only is it accessible by river, that is to say when the water is sufficiently high; at other times long and tedious camel transport becomes necessary. Each recurring year the same difficulties are encountered, nevertheless little has been effected to remedy matters. This arises, however, in no way from indifference upon the part of the Government, which is fully alive to the necessities of the situation; to the oft-spoken-of and undeniable shortness of funds must the defect be attributed. To confer upon Wau the advantage of uninterrupted communication by river with Khartoum would prove costly: the River Jur, a tributary, would have to be dredged and deprived of some of its worst bends, while both the Jur and the Upper Bahr-el-Ghazal must likewise have their channels defined and banked where they adjoin or pass through lakes, in order to shut out the masses of sudd, which grow here in shallow water, from breaking into the river.

To successfully accomplish all this, a powerful dredger, or perhaps two dredgers, of the "dipper type" would be required, and the cost of these machines would at to-day's prices probably exceed £2000.

An alternative scheme has been proposed, having in view the clearance of the Bahr-el-Arab and Lol, calling for the opening up of a channel from the latter to the Upper Jur, where that river becomes a good waterway, tolerably free from sudd, between the months of July and November. The Lol then would prove accessible to steamers all the year round, and thus provide a better land connection with Wau than that which Moshra-el-Rek affords. This port is surrounded by swamps, and from a navigation point of view is regarded as the most difficult and perhaps the most dangerous port of the Bahr-el-Ghazal and Jur rivers.

There has been put forward a proposal for a line of railway

connecting the Upper Jur with the French Congo ; but before the Jur could be successfully adapted as a permanent route to Wau, much expensive dredging work would have to be carried out.

Until the Central Government found itself enabled to provide the money to remake the causeway from Wau to Meshra, a considerable loss of merchant traffic was suffered. Latterly, however, funds have been expended upon improving the road which conducts over the swamp, while a small but strong bridge has also been thrown across the deep khor near Meshra. Something has at the same time been attempted with the road from Wau to Tonj, which is served by ox-waggons, and from Tonj to Yambio, a highway which, having lain dormant for many years—not more than one caravan passing over it during the course of twelve months—has lately become more used. A Greek merchant has now established himself there and opened a general store, periodically receiving his stock from Khartoum *via* Tonj and Wau.

While the agricultural prospects of the province have somewhat improved of late—a circumstance due to increased enterprise upon the part of the people, encouraged by their chiefs—the financial outlook is also decidedly less gloomy. The revenue collected has lately exceeded the estimates by a considerable amount, notwithstanding the prevalence of cattle plague, the bad harvest, and the practical collapse of the valuable ivory trade owing to the results of the European war.

THE PROVINCE OF BERBER

The province of Berber, which ranks among the larger of the administered areas in the Sudan, was one of the first to benefit from the new régime introduced by the Khedive Ismail of Egypt (about 1870), to whom reference has already been made at the head of this chapter. Hussein Khalifeh, who at that time was appointed governor, seems to have proved an exceptionally intelligent official ; being considered

a great sheikh of the desert, he became extremely popular with the powerful and numerous Arabs.

Sir F. Reginald Wingate, formerly Governor-General of the Sudan, did not consider that Hussein Pasha was altogether honest; and in his work, *Mahdism and the Egyptian Sudan*, he tells us that Hussein's defence of Berber at the time of the Mahdi's attack (on May 26, 1884) was only half-hearted. The town fell, and Hussein was afterwards tried by court-martial at Cairo (July 12, 1885), but acquitted.

The régime which followed, especially under the brutal Abderrahman Wad en Njumi, the Mahdi's infamous Emir (or rather his "Emir of Emirs"), proved terrible to the inhabitants. He robbed and pillaged in all directions; he seized the goods of the merchants and stopped all trade with the north, and driving out the entire population to Dongola, he kept them there. The trade of Berber up to this time had been very important—salt, mats, and baskets made of palm-tree leaves constituting a considerable factor in the general prosperity of the people. But all disappeared under the blighting rule of the Mahdists. The old town later on was completely destroyed, and a new one—hideously ugly—located just north of the former town, was commenced by order of the Mahdi. Famine then broke out, the price of dura rising to 100 dollars an ardeb.

It was at Berber, in 1884, that the whole of General Gordon's baggage—including his kit and the personal money procured for him through the kindness of his friends, Colonel and Mrs. Watson of Cairo—had been seized by the Dervishes. No part of this property was ever recovered, and Gordon during his one year's holding of Khartoum was compelled to make use of paper money almost entirely. Neither the money nor the other things belonging to Gordon would have been lost had the British authorities despatched them by way of Kassala (instead of *via* Berber) as they had been instructed.

At Berber had congregated all the more wealthy of the merchants of Khartoum when they found things there becoming critical; the town was finally betrayed to the

Mahdists by a treacherous Greek named Cuzzi. The ordinary population of Berber had been considerably increased, since Gordon had himself sent there 2600 persons from Khartoum in order to secure for them, as he hoped, a haven of greater safety.

After the town had been betrayed to the Mahdists, as mentioned, it became a source of danger to Gordon's messenger, Colonel Stewart, and his force of Basli-Bazouks—then on their way down the Nile bound for Cairo with despatches; Berber was therefore shelled by the *Abbas* and the four other steamers after an ineffectual attempt had been made to retake it from the Mahdists.

When the ever-victorious army of Sir H. H. (afterwards Lord) Kitchener entered the Sudan in 1898, the new Dervish town of Berber was found—as had proved the case with all other places inhabited by the Mahdists—in a very foul condition, so rank and unsanitary, indeed, that Macdonald's brigade, instructed to camp there, were compelled to go on for a farther ten miles before they could find a suitable spot whereon to pitch their tents.

There existed at one time three towns of "Berber"—two of which were reduced to ruins, and the modern town. All three stretched for several miles in length and ran parallel to the Nile, although situated fully a mile or more distant from it. Even the town most recently built is merely a collection of mud huts and straw *tukls*, the former class of building predominating. The ruins of the old town still afford evidence that a certain ornateness must have characterised the buildings, composed of good red burnt bricks. The surrounding land covers a rich and loamy soil, and an abundance of agricultural produce must formerly have come from this district. In its gardens there grew numerous prolific date-palms, while almost all kinds of vegetables—including onions, tomatoes, marrows, melons, and beans—were then abundant.

Yet when our troops first looked upon it the whole country is said to have resembled a plague-spot, while the town of Berber itself was a veritable cesspool, reeking with smallpox and typhus. An improvement, however, was soon

effected ; so pronounced was this that the Sirdar himself established his headquarters in an ample row of buildings surrounding a garden of several acres, thickly studded with palm-trees. True, both he and his European staff suffered considerably from the pestiferous midge and the ever-present mosquito ; they had, however, too much to think about and too much to do regarding the threatened advance of Mahmoud and his whole army of nearly 50,000 wild Dervishes, to care very much about such comparative trifles as insects, however pertinacious they might become.

The triumphal entry of the Sirdar with the captured Mahmoud in chains, on April 13, 1898, after the battle of the Atbara, will long be remembered, and is still talked about to-day by those who then either witnessed or heard of it.

The province to-day has a population of over 122,000 ; the people carry on a substantial trade among themselves and neighbouring provinces, principally in sheep. Of this industry El Damer is the centre, the export sometimes exceeding 17,000 or 18,000 head per month. Apart from sheep, the chief exports include wheat, barley, cotton, palm-leaves, matting, and dom-palm nuts. The local markets are invariably well attended.

The province of Berber differs from either Halfa or Dongola inasmuch as it contains blocks of good irrigable land running some way back from the river, and varying from 500 to 10,000 feddâns, as for example at Zeidab. Matters have proceeded far enough at Zeidab (one of the estates belonging to the Sudan Plantations Syndicate), and also at Darmali just north of Atbara (the property of Mr. Neville), to show that wherever a compact block of good land exists with a sufficient population at hand it should be possible to instal modern pumping-machinery in place of the uneconomic *sakia*. Failures have been met with at such places as Fadlab and Minawi, on the Atbara River, but these disappointments were chiefly due to the selection of unsatisfactory sites and the planting of crops which, it is now known, were altogether unsuitable for the district. It is not too much to say that the whole future development of the Berber Province depends upon

the installation of a series of pumping plants, both large and small. The *sakia* wastes water: it can only irrigate a short distance back from the river bank; the cattle employed to work it are always liable to die of cattle plague; and whenever a low Nile occurs it is impossible to obtain sufficient forage to keep the animals in good condition for work.

It is not so much the acquisition of concessions for cultivators that is in question as the water-supply to native owners, although, in certain cases, the two might be combined. For small schemes the Diesel engine will probably be found the most suitable as well as the most economical, judging from experience gained at Darmali and from the results of the interesting experiment still in progress at Tuti Island (Khartoum North). The danger of sandbanks forming opposite the pumping-station can, where necessary, be met by mooring the pump on a raft and using lengths of flexible piping. Special rolling-stock for the transport of oil in bulk to the pumping-station has now been provided by the Sudan Government Railways. The first effective pumping experiment was made in the neighbourhood of Berber town, where most of the desired conditions already exist. Here there is a block of first-rate land available, consisting of 200 feddâns, native-owned, and another 500 feddâns which are the property of the Government. The native population is both large and needy, so that labour should be readily found.

At Zeidab it has been found profitable to supply water to natives for the cotton crop at 250 p.t. per feddân, while the charge for other crops which mature more quickly averages between 150 and 175 p.t. In addition to crops grown for sale, it has been clearly shown, both at Zeidab and Darmali, that it is well worth while to grow fodder crops, such as lubia and berseem (alfalfa), mainly for the purpose of fattening sheep. These animals can be bought when lean at about 40 p.t. per head, and disposed of in El Damer market after a month or two at from 80 to 100 p.t., or in more distant Egypt at 150 p.t. (= £1 : 10s.) apiece.

It is gradually becoming more evident that the class of

cotton grown, at any rate by native owners, in this province should be principally that of an improved American, such as Nyassa Upland and Griffin, since such crop is less liable to injury from the cold spells which occur there from December to February inclusive. Such crop, moreover, requires less time to mature and occasions less trouble to harvest, being out of the ground by the end of December if it be sown by the middle of May. Of Egyptian cotton, Ashmuni, the kind which is largely grown in Upper Egypt, appears to thrive the best, being more suited to the climate north of Khartoum; other Egyptian varieties will probably succeed, if at all, only by early sowing and picking before the cold weather sets in.

Another agricultural possibility lies in the opening of new, or reopening and extending of some old, canals for the purpose of basin irrigation; this class of enterprise, however, would probably be best undertaken by the Government, since there would arise no question of any fresh installation, the upkeep of elaborate machinery, or the need of any considerable staff, although a number of regulators might be required. Many old canals exist; the more immediately promising is that which waters the Kelli basin near Shendi, where about 7500 feddâns will eventually be made irrigable. A somewhat smaller scheme, embracing the cultivation of 1500 feddâns, could, meanwhile, be carried out experimentally at a very low cost.

In addition to cotton, other crops which would most probably prove profitable include dura, maize, wheat, millet (dukhn), barley, lubia, berseem, peas, Egyptian beans, butter-beans, and others. The cultivation of the henna bush might also be extended. An effort is, I understand, likewise being made to increase date-growing by means of Government land grants to those who undertake to raise a sufficient number of trees. At present the dates grown, principally in the Abu Hamed district, are mostly of an inferior quality.

Apart from agriculture and stock breeding, the possibilities in the Berber Province are limited. Again I call attention to the El Damer live stock market, where, for about

six or seven months of the year, an average of from 4000 to 5000 sheep are sold weekly, for export to Egypt, at prices ranging from 75 to 100 p.t. a head. This total, however, is capable of considerable extension. The possibilities of sheep-fattening are hardly as yet realised. By the sinking of additional wells in the grazing-grounds stretching away south and east there would be made available much excellent pasture-land, at present useless owing to the lack of water. A fair trade in cattle is carried on, so long as the plague does not interrupt the movements, while camels are very largely owned in this province.

Basket-making, from the fibre of the dom-palm, bids fair to become a profitable industry in the northern part of the district. Woven baskets are already supplied in considerable quantities to the Sudan Government Railways for use at the extensive coaling and other yards at Atbara. Delivered there at 7 milliemes per basket, the price compares favourably with that of 17 milliemes for the Egyptian-made article, composed of date-palm fibre. A wide increase in the Sudan output should take place, since large quantities of baskets will be needed for carrying material for the earth-work on the Gezira in connection with the great irrigation project. Basket-weaving is and should remain essentially a home industry.

Yet another promising small industry consists in the preparation of the material obtained from the dom-nut kernel. A factory for shaping this material into buttons exists at Atbara, and it is said to promise well. This method for using the nuts is probably preferable to exporting the whole fruit in bulk. Some of the native workmen engaged in the industry have become exceedingly expert, one worker dealing with anything up to 60 kantars of nuts per diem, at a remuneration of but 2 milliemes per kantar. The average number of kantars handled is from 30 to 40, an output which would yield a wage of from 6 to 8 p.t. per diem. A certain Greek merchant in Berber who owns a steam-driven plant has erected an establishment for the sorting of different qualities of the senna leaf and pods, both of which are considered valuable commodities.

The important towns in this province include Shendi, El Damer, Berber, Abu Hamed, and Atbara. Atbara is the headquarters of the Railway Department, and Abu Hamed a junction on the Khartoum-Halfa (Cairo) line; both are partly described in the chapter on "Railways."

Shendi is on the right bank of the Nile, and south by water 471 miles from Halfa, and north 86 miles from the mouth of Atbara River, and 290 miles from Khartoum. Here, in 1882, young Ismail Pasha, son of the conqueror of the Sudan—Mohammed Ali—was burned alive in his hut by the Jaalins, in revenge for numerous cruelties inflicted upon them by their hated Egyptian rulers. The town and all its inhabitants were afterwards destroyed by Mohammed's bereaved father.

At the modern village of Kabushia, not far from Shendi, are the ruins of the great city of Meroë, capital of the ancient Meroitic kingdom. It was the residence of Candace, the famous Queen of Meroë, who valorously fought the Romans but finally was overwhelmed by their armies under Petronius, A.D. 22-23.

Shendi, like Metemmel, a Berber, suffered severely from the visitations of the Dervishes. When the British troops, led by Major Hickman, captured the town in March 1898, they found the place a complete wreck, the once large and thriving population practically exterminated, and only Mahmoud's abandoned women and children and wretched starving slaves left there. These unfortunates came crawling out of their hovels expecting instant death, but they met instead with kindness and protection. It was found expedient, however, to burn every one of the unsanitary grass huts and straw *tukls* which had been occupied by Mahmoud's followers, together with an immense quantity of forage and grain which could not be more conveniently disposed of.

Shendi had already become a Mahdi possession when the English troops retired from the Nile after the fall of Khartoum on January 26, 1885. Gordon had sent there (September 30, 1884) his three steamers—the *Talataween*, the *Mansoorah*, and the *Saphia*—to bring up to Khartoum Wolseley's force of British troops, troops that he fondly

imagined would reach him before the fall of the town. But as we know, they arrived just too late by one day. Gordon's ships had lain idle at Shendi for over three precious months, whereas had he but retained them at Omdurman, Khartoum might never have fallen.

At one time Shendi, which lies on the Nile opposite Metemmeh, had been regarded as the principal commercial town in the Sudan, but it was relegated to second place when Ibrahim, a son of the Viceroy Mehemet Ali, selected in preference the then small town of Khartoum as the capital of the new province. Gordon had only seen Shendi in its declining glory when, in January 1878, he had passed through on his way to Khartoum, and had been arrested by a telegram from the Khedive Ismail begging him to come down to Cairo without delay in order to assist in disentangling the Egyptian finances.

Upon the reoccupation of the country by Kitchener's Anglo-Egyptian troops in 1898, Shendi became the headquarters of the cavalry in the Sudan, on account of the particularly fine grazing round about; the surrounding country generally is level and composed of good gravel soil. When the town was occupied by Major T. Hickman with the 15th Egyptian Battalion, it was only after a stiff fight with the Dervishes. To-day, Shendi forms the district headquarters of the railway (southern section), the office of the district traffic manager being located there.

El Damer, the principal town and seat of government of the province since 1905, was at one time celebrated as a seat of learning, having its own modest little university. Although this no longer exists, a commodious schoolhouse has been built, and an education rate to support it has been started. The natives of Berber Province, while entirely in favour of more educational facilities, strongly object to pay for them.

El Damer has completely superseded Berber as the administration headquarters of the province, and the inhabitants seem to form a prosperous and peaceable community. A railway bridge crosses the Atbara about 8 miles north, while the Nile-Red Sea railway branches off

upon the right bank of the river at a point situated just north of the bridge. The ferries, of which there are as many as 71 established in this province, yield an annual revenue of between £E450 and £E600. With the exception, however, of one or two, they are entirely used by the local cultivators who cross to and fro between the mainland and a number of islands on the opposite bank of the river. Each passenger contributes a small stipulated price per annum towards the upkeep and running of the ferries.

Metemmeh—occasionally spelled “Metemmah” and “Metemma”—lies four miles from Shendi on the opposite side of the Nile. Both towns were prominently concerned in Wolseley’s disastrous expeditionary operations in 1884–5. At Shendi was collected the fleet of steamers sent from Khartoum by the anxiously awaiting Gordon in order to bring up without delay Wolseley’s long-expected but most dilatory expedition, despatched to relieve him. The British forces reached Wadi Halfa October 15, Dongola November 3, and Korti December 15. It was not until the very end of the year (30th of December 1884) that the troops were pronounced ready to start on their errand of succour from Korti, across the Bayuda desert for Metemmeh, a marching distance of at least 170 miles. Major-General Sir Herbert Stewart, commander of the relief force, was not given a free hand, but in obedience to Lord Wolseley’s instructions he was obliged to waste much valuable time between Korti and Metemmeh. The delay enabled the Dervishes to surprise him with formidable forces. Through lack of foresight and efficient organisation of the campaign the whole purposes of the expedition were frustrated. Metemmeh, previously captured by the Mahdists, was not retaken by our troops. General Stewart was mortally wounded in battle, January 19, 1885. On January 24, Sir Charles Wilson sailed on one of Gordon’s Nile steamers for Khartoum, arrived on the 27th, one day too late, and learned of Gordon’s death and the fall of Khartoum by treachery. On January 26, while returning under fire, his steamer was wrecked on a rock near the

Shabluka cataract. With fine heroism, Lord Charles Beresford, aided by the brave chief engineer, Benbow, rescued Wilson and all his party from their perilous situation. Then came the melancholy retreat of Wolseley's army, soon followed by General McNeil's deplorable debacle near Suakin. By the end of 1885 practically the whole of the Sudan had fallen under the terrible devastating rule of the Mahdists. After these disheartening fiascos, in which the lives of so many brave men were sacrificed in vain, and so many millions of money was wasted, it is inspiring to turn to Kitchener's brilliant achievements during his campaign of reconquest. Though handicapped by unparalleled difficulties he redeemed the honour of Britain, and rescued the Sudan from barbarianism. On July 1, 1897, Metemmeh, formerly a prosperous caravan trading town of more than 60,000 inhabitants, was the scene of a terrible massacre of Jaalins, some thousands of whom were mercilessly slaughtered by the Dervishes under the blood-thirsty Mahmoud. The ruins of the once thickly populated town are still visible. The whole surrounding district consists of depressing desert, a fitting environment for the terrible tragedy which took place there.

The growth of the town of Atbara as a railway cantonment has been altogether remarkable. Within a single decade it had expanded from a small settlement to a large, well-ordered, and exceedingly attractive town. Wide roads mainly unpaved, but well rolled—extend in rectangular directions, the majority being planted upon either side with handsome non-deciduous trees, which have matured rapidly in this favourable climate, and now afford an abundance of agreeable shade.

The many private residences, which stand well back from the main thoroughfares and are concealed behind delightful gardens, show both taste in design and care in maintenance. The strict sanitary regulations which obtain not only forbid the existence of noxious insect life, but call for the infliction of substantial fines upon any householder upon whose premises as much as a single mosquito is to be found. This rule—a very sound one and abundantly justified by the

results obtained—is no mere paper regulation ; it is rigidly and impartially enforced upon all residents alike.

A small but well-designed wooden building serves the Church of England as a place of worship, and here divine service is conducted each Sunday evening, sometimes by an ordained priest, when available, at others by a lay reader. The amateur choir is efficient, while the congregation, if ordinarily small, is devout. Upon occasions such as Easter, Christmas, and other Church holidays a considerable muster of worshippers takes place, as many as eighty or ninety having collected within this modest but comfortable building.

CHAPTER XLII

Blue Nile Province—Agriculture—Cattle-rearing—Colonel E. A. Dickinson's distinguished services—Finances—Wad Medani—Abu Deleig—Kamlin—Managil—Meselemia—Dervish destruction.
Dongola—In Mahdi times—Old Dongola—Condition of people—Improvements effected—Improvvidence of natives—Abu Hamed and Kareima Railway—Cattle trade and plague—Sanitary conditions—Merowé—Sir H. W. Jackson's great and beneficent work—Physical features of town—Civil Hospital—Health of people—Argo—Debba—Poverty of the people—Historical associations—Kitchener's tree—Interesting localities—Kerma—Ancient ruins—Khandak—Condition of inhabitants—Korti—1885 campaign—A Memorable March

THE BLUE NILE PROVINCE

THE Blue Nile, formerly known as the Gezira, Province is not only now the most thickly populated, but, in normal times, it is one of the most prosperous of the fifteen districts of the Sudan. With a superficial area of only 12,000 square miles, and the second smallest of the provinces, it possesses a population of 192,879, thereby ranking higher even than Kordofan—with its area of 100,000 square miles—now that the Nuba Mountains section has been taken from it. Wad Medani originally formed part of the Sennar Province; the headquarters, however, were removed in December 1905 from Kamlin to Wad Medani, and the district at the same time was added to the Blue Nile Province. It is an essentially agricultural country. Like many other parts of the Sudan, the Blue Nile Province is dependent for its prosperity upon both river-water and seasonal rains.

Cattle-rearing is another important pursuit. The cattle trade upon several occasions has been brought almost to a standstill owing to an outbreak of plague among the beasts; great damage has been effected, and the entire cattle trade of the province had been dislocated.

Under the highly efficient governorship of Colonel E. A. Dickinson, who retired in the early part of 1914 after ten years' valuable service, the Blue Nile Province made great economic advance. Colonel Dickinson devoted much attention to improving the condition of the people, to designing and constructing model sanitary market buildings, to perfecting the far from satisfactory means of transport (before the railway was constructed), and to increasing public education. In 1903 there was but one school in the province—that started by Blewitt Bey—but by 1906 the number had increased to six, with more than 200 pupils. To-day 1200 boys and girls are receiving education at fifteen schools. Colonel Dickinson successfully developed fruit and vegetable growing, and did much to improve and beautify the town. He was regarded by Europeans and natives alike as an exceptionally able administrator, and will long be remembered for his good works.

Notwithstanding the difficulties experienced in collecting the taxes during succeeding adverse years, the realised revenues have mostly exceeded the estimated revenue.

A remarkable instance of the rapid manner in which countries like the Sudan can recover from periods of depression is afforded by the case of the Blue Nile and other of the provinces depending—as most of them do—upon the pursuit of agriculture. Throughout the year 1914, as a result of the failure of the rains and the Nile flood, it had been found impossible to press for payment of outstanding taxes, since the people had no money whatever. Indeed, the majority of the male population had emigrated, leaving behind in the villages only women and children, whom the Government had to assist to feed. The revenue had fallen off deplorably, especially in connection with the herd-tax receipts, owing to the heavy mortality among the province cattle. Then, in 1915, as complete a change came over the province, the splendid rains having brought about a reign of prosperity which has since, with some interruptions, continued.

The principal towns in the Blue Nile Province comprise—besides Wad Medani Town—Abu Deleig, Kamlin, Managil,

Meselcmia, and Rufaa. As already mentioned, Wad Medani has been the gubernatorial seat since the year 1905, and it has gradually grown into a substantially built and pleasant town, very agreeably situated on the left bank of the Blue Nile, just above its junction with the Rahad. It is said to have been founded as far back as 1800 A.D. by one Fiki Medani, whose name is still much venerated by the people. These latter include representatives of a large number of different sedentary tribes—principally Khawalda, Arakin, Jaalin, and Medaniim. A large general market is held daily, and here a considerable amount of trade is conducted. In the *suk* (native market) many small industries such as saddle and harness manufacturing, arms (daggers, swords, and spear-heads), mats made of palm-leaves, silver filigree work, and basket-weaving are carried on. The town contains many substantially constructed buildings, including the Governor's private residence, the Mudiria (the Governor's office), the Social Club, the railway station, and a number of officials' residences.

The small native town—or rather village—of Abu Deleig has some historical interest. Up till February 1898 the place was held by a Dervish force under the command of a redoubtable chieftain named Abd-el-Rahmin Wad Abu Dugal; but notwithstanding his terrifying name and well-known bravery he was surprised by Irregulars from Kassala in the same month of February, but not so seriously as to prevent him from taking measures for a sanguinary revenge upon the disturbers of his peace after they had left. While returning the Irregulars were themselves surprised, and suffered very severely. The town stands in a rather melancholy district—treeless and almost grassless—some 84 miles by road from Khartoum. There is a good amount of water; in fact there are over fifty wells—between 30 and 70 feet in depth—which extend for many miles in the Wadi Jegjegi. The little town is still selected as the residence of the Sheikh Mohammed Talha and the headquarters of the Batahin.

Kamlin is one of the districts of the Blue Nile Province: Eilafim, the principal village, is clean and well kept, inhabited by the Mahas and Shaigia tribes, who prosper under

the government of the Omda. The general peace, however, is not infrequently broken owing to the claims advanced by different pretenders to the Khalifanship, supported by some and opposed by other members of the community. The disputes which rage, however, are purely local, and interest no one outside the particular small community. Kamlin itself is situated on the west bank of the Blue Nile, about seven miles distant from the nearest point of the railway, near the southern end of the district, and is a small town which is the seat of the district administration. At one time there existed a small sugar factory at Kamlin ; nothing but the ruins now remain. The surrounding district, however, seems to be well adapted to sugar-cane cultivation, and this industry may be again attempted some day.

Both Managil and Meselemia are splendidly fertile districts ; the waters of the Blue Nile which course through them are considered far more valuable as a fertiliser than those of the White Nile, and the richness of the pasture lands and of the subsoil found in these districts abundantly justifies the belief. Managil consists of a collection of about ten or twelve small villages or settlements, and these lie scattered about the most fertile part of the province. It is situated some 38 miles distant from the town of Wad Medani, 50 from Dueim, and, say, 107 miles from Khartoum. Markets are held upon two days of each week (Sunday and Wednesday), when the natives from all around assemble to bargain and, incidentally, to quarrel with one another. The surrounding population amounts to between 43,000 and 44,000, and is a very mixed one. This district, among others, was handed over in the Mahdi days by the Khalifa Abdullah to the tender mercies of his fellow-tribesmen the Taaisha, who imported a number of Tagale blacks to work for them at cotton cultivation, and these slaves after the British occupation were freed and settled down ; they are now numbered among the most industrious and thriving of the inhabitants.

Meselemia is located about 11 miles south of Arbagi, and nearly 6 miles inland from the Blue Nile. Until the destructive hand of the Mahdi was laid upon it, Meselemia

was a town of considerable size and the centre of a large trade. It was, however, completely destroyed by that fanatical fiend and his followers, who wrought such awful mischief in the country entirely unchecked for fifteen years. It has now been rebuilt, but the number of inhabitants is not large.

Some 95 miles from Khartoum by land, and 104 by river, is found a progressive town named Rufaa; the surrounding district of the same name has a population of nearly 30,000, mainly composed of Shukria Arabs. The village comprises, besides a number of grass *tukls* very neatly built and arranged, several brick buildings, including a mosque, the schools, the morkas, the Government offices, etc. Rufaa is in size the second town in the province after Wad Medani. From a short distance the appearance presented is extremely picturesque. There is a tribe known as the Rufaa, a member of which—one Torin Ahmed—is a well-known and influential Omda and rules over the neighbouring village, Segadi, which, however, is actually in the Sennar, and not in the Blue Nile Province. The people of this district appear to be very industrious and fairly prosperous.

Indeed, the whole Province of the Blue Nile provides to-day a pleasing and satisfying picture of prosperity. By far the larger yield of dura is found in this province, although others which contribute notably are the White Nile, Sennar, and Kassala.

THE PROVINCE OF DONGOLA

Dongola was but one of several towns situated on the Nile between the third and fourth cataracts where the Romans at one time maintained garrisons. Here, as at Napata, are to be found several unmistakable remains of the walls and forts built by those world-conquerors; still others are to be found between Wadi Halfa and Philae.

At one time Old Dongola must have been a place of some considerable strength and importance. Long before the Christian era it flourished, while even afterwards a certain king—Silko by name—who lived in the second half

of the sixth century, and became a worshipper of the Cross—maintained a court here and lived in some style. The remains of the royal residence may still be seen, and these prove that the palace was a lofty and capacious building, adorned with several domes constructed of burnt red brick. One may also see not far distant the much better preserved mosque, which was built and opened for public worship as far back as 1317; the site commands a fine view of the surrounding country and the river.

The city of Dongola, in the sixteenth century, stood upon the eastern bank of the Nile, spread over a dry and sandy hill. Its houses were ill-built, according to a French traveller who visited the place in 1700, while he found the streets almost deserted and filled with heaps of sand occasioned by floods from the mountains. The king's palace—or castle—was situated in the very centre of the town. The king—or *meh*—was a hereditary prince, who, however, paid a tribute to the king of Sennar.

Dongola distinguished itself during the Mahdi revolt by refusing to join the banner of the false prophet; and under the rule of Mustafa Yawir, who strongly suspected the Mahdi of being the humbug he most certainly was, the town remained for a long time loyal to the Egyptian Government. Mustafa Yawir even defeated the Dervishes at Korti, situated not far away, but in the end the Mahdi proved too strong, and Dongola was compelled to submit to superior force, the loss of the town preceding that of the entire province, a loss which proved, moreover, a great blow to Egypt. The town was then almost completely destroyed. However, under the long progressive and beneficent administration of the present Governor, Sir H. W. Jackson, an entirely new town has been built; new streets, new markets, new government offices, and many other public buildings have replaced the former ramshackle dwellings.

Old Dongola is situated on the east bank of the river, and is distant some 155 miles from Kerma. It presents to-day nothing but a confused collection of dilapidated mud dwellings, with a population of probably not more than a scattering of able-bodied men, the remainder of the

wretched-looking inhabitants being composed of gaunt women and starved-looking children. A greater number of both sexes, however, are met with on the small island of the same name, and these appear to be better fed and more contented with their lot.

It was at the more modern town of Dongola in 1884, during the first Nile campaign, that the whale-boats which had been made in England were first brought into requisition; they had been portaged round the second Nile cataract by Canadian steersmen, and past the mass of porphyry rocks which present their forbidding black teeth in this part of the river. Some miles farther on from Dongola, between Kerma and Halfa, there stretch one hundred miles of successive cataracts; this portion of the river is wholly useless for navigation.

The people of the modern town of Dongola appear to be more fortunately placed in regard to their material welfare than their immediate neighbours at Argo and Kerma, since they are able to follow several industries which bring them a fair return, while their local agriculture is not wholly dependent upon the state of the Nile, a system of irrigation canals having been introduced and, under ordinary conditions, well maintained. The town is a large one, and the people contented; the markets for both produce and animals are usually well attended, and the best proof of efficient administration, thrift, and prosperity is found in the fact that the Government taxes are usually paid with regularity, little or no pressure being necessary.

Dongola new town is located a short distance from the banks of the river. It is well laid out and possesses numerous substantial houses, some with fine gardens surrounding them. A conspicuous building is the former palace of the Governor, now occupied by the Senior Inspector of the province; it is a brick construction surmounted by two castellated towers; a wide magnificently constructed verandah runs round the house upon all four sides; all of the rooms are of immense size. A large and well-kept garden, stocked with many orange-trees, date-palms, and fig-trees, as well as with a variety of tropical plants—and a

number of English flowers which seem to flourish in this climate—overlooks the Nile, the view from the broad verandah being unrivalled. The many splendid lebbek-trees and these beautiful gardens were planted by Colonel Sir Herbert Jackson, K.C.B., the Governor of the province.

The same good order in the maintenance of the public thoroughfares, which is to be noticed in other towns of the Dongola Province, is also observable here; indication stones, whitewashed and placed at regular intervals, mark the route of all main roads that are used between the frontier of Kordofan on the one side, and that of the Red Sea Province on the other.

The usual route to Dongola from Khartoum is by train to Abu Hamed and Karcima and thence by regular steamboats to Merowé and down the river as far as Kerma, a small village practically at the extreme end of the province, where the cataracts (of Bahr-el-Haggar) commence. One day, when money is plentiful, the Government may elect to continue the rails from Karcima onwards to Kerma. At one time, indeed, there existed a small badly-constructed and even worse-equipped line from Kerma to Wadi Halfa—actually the first railway line to be laid in the Sudan—and which was used by General Kitchener in his campaign of 1896. This line, however, has long since been torn up, the usable portion of the material being employed elsewhere.

As may be well understood, the construction of the Abu Hamed-Karcima line has materially added to the general prosperity of the Dongola Province; to-day many thousands of date-palms may be seen flourishing here as they flourish in no other part of the Sudan—trees which mean food, clothing, and drink to the particular owners. Each year has seen the planting of many additional young date-trees, while the number of cattle has consistently increased.

Merowé town, one of the most interesting places in the province of Dongola, to-day stands upon both banks of the Nile, the old settlement dating back for some hundreds of years, while the new portion was commenced as recently as 1903. The new capital represents the work of Sir H. W. Jackson, one of Kitchener's valorous veterans, with whom

the planning, construction, and general improvement of the town have been largely a labour of love.

For many years the seat of government was located at Dongola, situated some 200 miles farther down the Nile, a town which, as has been shown, is not without historical interest, but considered unsuitable in many ways as a place of residence, especially for Europeans. During the spring of 1903, when Sir F. Reginald Wingate was visiting the province upon one of his periodical tours of inspection, it was decided to remove the Governor's official residence to Merowé, and to select that site as the capital of the province.

Gradually a well-designed, well-constructed town has grown up under Jackson's direction. Long, straight avenues are planted with handsome evergreen lebbek-trees, imported from India, which, although only in their twelfth year, have become tall, stately, and intensely umbrageous. Broad pathways, well gravelled and separated from the houses by brilliantly green, neatly trimmed hedgerows; range upon range of square or oblong brick and plaster edifices, tinted a pleasing rose colour (an effect obtained from a natural earth pigment found locally); and houses designed in semi-Moorish style of architecture, with broad sloping or flat roofs and protruding eaves, approached by wide porticoes and mostly surrounded by well-tended beds of brilliant-hued flowers and lofty date-palms, afford an impression at once pleasing and effective. Undoubtedly modern Merowé may be regarded as a beautiful and dignified capital; and since it has abundantly justified the time, trouble, and outlay which have been devoted to its construction, it may serve as a type for other new towns, or suggest improvements in old ones, of the gradually expanding Sudan.

The Merowé Civil Hospital is one of several similar excellent governmental institutions. It is a well-designed, well-arranged, and well-ventilated building, capable of accommodating about twenty-six patients, and having two wards—a male and a female. Contagious diseases are treated in an entirely separate building situated some distance from the town.

The patients are usually treated in the hospital itself,

among them being men, women, and children, some of whom have been brought in from outlying districts between 80 and 100 miles distant.

The general sanitary arrangements of the province of Dongola repose in the hands of a senior Medical Inspector, who, among other innovations, organises a complete system of observation. He has, for instance, appointed a number of *hallaks* (registrars by office and barbers by trade) to keep watch over the several villages within their immediate neighbourhood; all of these voluntary workers are men who can both read and write, and who are known to be intelligent and reliable. They seem able to maintain a careful surveillance over every one and everything; they furnish a reliable record of births and deaths, hitherto found difficult to obtain or to be depended upon when obtained. These men are also qualified to render first aid in connection with trifling accidents. Each *hallak* undergoes training in a regular hospital for about ten days annually, his education including the practice of vaccination, the dressing of wounds, and other similarly simple acts of assistance rendered to the sick and wounded.

But Merowé affords by no means the only evidence of the good initiative work and high administrative ability in this model province of Dongola. The large number of signposts erected upon the public roads, some of which have been marked out by means of a double row of stones—freshly whitewashed during every recurring month of January—render it an easy matter for the stranger to find his way from town to town across the desert-country without the necessity of employing local guides. A new system has also been introduced for working the *sakias* belonging to different proprietors, all of whom, with the amount of their holdings, are registered in the Government land and irrigation office. Instead of the usual cumbersome mud-brick mounds serving as landmarks, and which frequently become broken—an occurrence which might, and often does, lead to an involved dispute concerning boundaries—or of slabs of rock bearing the name of the landed proprietor crudely carved thereon, there has now been instituted a series of neat iron standards

each bearing upon a plate the number, or numbers, of the particular *sakia*, such number corresponding to an entry in the land office books and showing at a glance the name of the proprietor, the amount of taxes for which he is liable, and all other necessary particulars. Since these and other similar innovations have been in force, the organisation of the land and irrigation department of the province of Dongola has worked with much greater freedom.

While Merowé is the principal town in the province of Dongola, there are several other towns of importance, such as Argo, Debba, Kerma, Khandak, and Korti. I passed some time at each of these places, finding one more interesting than the other, and regretted keenly that the limited amount of days at my disposal—fourteen days in all—prevented me from prolonging my stay. To my mind the province of Dongola offers more features of real interest to the European traveller—be he a student of archaeology or of methods of administration—than any other of the Sudan departments. But for the difficulties attending its approach, and the lack of residential accommodation from which it suffers, Dongola might easily secure the favourable attention of travellers and tourists from all quarters of the world.

The natives of Argo appeared to me to be distinguished for neither industry nor enterprise. Some of the best land in the district has long been at their disposal, and every encouragement to cultivate it has been offered to them by the Government; but they are a degenerate, idle, and indifferent community, abjectly poor—easily to be understood as a result of their intense laziness—and quite unresponsive to the efforts made to improve their material well-being. They have been, moreover, blessed with good Mamurs and exceptionally enterprising and intelligent sub-Mamurs, whose joint services have been fully recognised by the Provincial Government, even if disregarded by the people.

The sad condition of the inhabitants of Debba, from among whom fully 20 per cent of the males had left in order to seek employment elsewhere, contrasted with the former prosperity of that place. It is still maintained as the headquarters of a District, but during the days of the old

government Debba was regarded as a very important trade centre. There it was that caravans, carrying gum, ivory, slaves, etc., first touched on their way from Omdurman to Kordofan, *en route* for Egypt.

In December 1912 General (afterwards Earl) Kitchener visited Debba during an official inspection tour of the province of Dongola, celebrating his advent by planting a tree upon the side of a mud-house—now entirely disappeared—that he had himself occupied in 1884–85. At present the tree is but a few yards in height, and rather sickly in appearance. No doubt, however, in a few years, after it has received additional beneficial seasonal rains (it is well protected by a screen), this tree will have become as vigorous and as sturdy, as upright and as useful, as was, at one time, its distinguished planter.

There are many very interesting places to be seen within easy reach of the river between Kereima and Kerma, such as Tangassi, still one of the more important markets in the Sudan, accommodating every Sunday an immense gathering of native buyers and sellers; Hetani, the site of the camp of the 1st Brigade, who occupied it just before the withdrawal of the British troops from the country (1885); Karad, also the site of a British camp—that of the 2nd Brigade; Letti, a new irrigation basin, measuring some 8000 feddâns; Old Dongola, the former capital of the Christian kingdom existing in the sixth century A.D.; Labab Island, situated some ten miles south of Dongola-el-Ordi, and locally known as Geziret-el-Ashraf, since it was here that had been born the Mahdi Mohammed Ahmed, son of a humble boat-builder, and the cause of all the trouble that visited this country between 1882 and 1898; Argo Island, whereon, at a place called Hag Zumar, there repose two colossal stone statues in a recumbent position (fallen no doubt from the upright), which resemble, in many respects, the colossi of Thebes, together with a headless statue of great antiquity, attributed to 2300 B.C.; and Artigasha Island, located five miles north of Argo, where for years a certain Sherif Sayed Mohammed-el-Idrisi-el-Yamani occasioned the Ottoman and Egyptian Governments

much serious trouble. To placate this individual, who was too influential, it would seem, to be either ignored or suppressed, he was given complete control over an immense area of territory stretching from Kinfuda to Mocha, in Arabia.

Kerma, as previously mentioned, was formerly on the railway line from Halfa, and situated at a distance of 203 miles from that town. It had been the dream of the Khedive Ismail Pasha to open up the whole of the country by means of the iron track, and in 1877 he was particularly busy in this part of his Sudanese dominions. The Dervishes in 1885, however, destroyed every kilometre of line which had been so patiently and so expensively built. The British-Egyptian troops rebuilt the track in 1896 to afford means of transport for the Dongola Expeditionary Force which was then operating against the Mahdists. It was finally completed, and afterwards abandoned.

Between Kerma and Dongola the River Nile becomes difficult to navigate, but throughout the year small steamers belonging to the Government ply between these points carrying the mails, passengers, and cargo.

Beyond the remarkable ruins which have been uncovered by Dr. G. A. Reisner, there is little of interest to be seen at Kerma. The ruins are easily accessible from the riverside, the journey of some ten or twelve miles to and from the site occupying about three hours on donkeys and something less on camels. The summits of the former edifices—whether temples or churches or forts is a debatable question—may be seen from afar owing to the complete flatness of the country and the remarkable clearness of the atmosphere.

Khandak lies almost equidistant between the town of Dongola to the north and Debba to the south-east. At one time the place must have possessed considerable local importance, and it is much to be regretted that nothing accurate is known concerning the immense buildings—now in ruins—which once overlooked the river, and which still form a conspicuous landmark for many miles around. There are indications here of edifices of undoubtedly Roman construction, but whether these latter are merely

imitations introduced by the Turks or the original from the hands of the Roman occupants of many hundred years before, it is not possible to say.

The town appears to be entirely dependent upon two small neighbouring villages, each located about three miles distant, for its supplies of vegetables and meat, nothing being grown in the district owing to the absolute sterility of the land. Formerly the town of Dongola sent some of its produce to the Khandak market, but it does so no longer. The people are naturally extremely poor, many of them presenting a wretchedly starved appearance. The only industry carried on is that of making reed baskets fashioned of dried grass, dyed brilliant hues. These articles are disposed of at a few piastres each, and are mainly purchased by European visitors—few though they be at present—and serve as agreeable souvenirs.

On January 1885 the town of Korti was the scene of concentration of the British forces which attempted the relief of Khartoum. "Here the Nile for hundreds of miles," Frederick Villiers once declared, "was alive with boats crowded with our troops rowing, towing, and sailing their whalers up the dreary reaches of the river." The famous Highland regiment—the Black Watch—greatly distinguished themselves upon this expedition, notwithstanding their hitherto almost total ignorance concerning the handling of river-boats.

At Korti the base of operations had been formed, the battalions massed, and the headquarters stationed. From this point Sir Herbert Stewart started with his 2000 men of the Camel Corps upon their march to Metemmeh, across the Bayuda desert, while at the same time the boat brigade, with some cavalry, under the command of General Earle, moved up the Nile, keeping close to the banks, to Abu Hamed.

That march has been described—no doubt with justification—as the most remarkable not only of any desert marches undertaken in the Sudan, but of any that had ever occurred in the annals of war. A Russian officer, who knew all the details, and who would be little likely, in those days, to

over-praise any British military exploit, has described it as comparable to "any of the great deeds of Xerxes, imbued with the spirit of the Spartans who died in the pass of Thermopylae."

How brilliantly the British force—but twelve hundred strong pitted against five thousand fanatical Dervishes—distinguished itself, and how it fought its way through a veritable "Valley of Death" to the Nile banks is still talked of with enthusiasm by the few survivors among the natives, and there are some yet to be met with, just as friendly and as loyal to-day as they were bitterly hostile and treacherous then. The passage of some forty years has done nothing to shake their confidence in the superiority of the British arms, nor in the justice of the British administration.

CHAPTER XLIII

Darfur—Geographical features—Conquest in 1916—Death of Ali Dinar—The inhabitants—Beni Gelul—The Fors—Economic advantages of Darfur—Cattle and horse breeding—Late Ali Dinar's stud-farm.

GEOGRAPHICALLY, Darfur, in shape more or less a parallelogram, lies between N. lat. 10° and 16° and E. long. 22° and $27^{\circ} 30'$. On the north it is bounded by Dar Bedaiat and the desert west of the Madi Melh; on the east, by Kordofan, the frontier running from Kaja Serrug (in Darfur) in a south-westerly direction to Dam Jamad (in Kordofan), and thence in a southerly direction to the Bahr-el-Arab and Dar Fertit. The western boundary leaves Dar Sula and Borgu, or Wadai, within the French sphere of influence, and Dar Gimr and Dar Tamar to Darfur. The area of the newest (the fifteenth) political province of the Anglo-Egyptian Sudan is 150,000 square miles, and the population is estimated at not less than $1\frac{1}{2}$ million. Some years ago, as some among us may yet remember, a good deal of excitement existed on account of a rumour to the effect that the French—it was in the days of the *mal-entendu* instead of the *entente*—had occupied Abesher, the capital of Wadai, just as in the previous year of 1898 they were unsuccessfully defying us at Fashoda. Fortunately, the rumour proved to be false. Whatever difficulties have existed between our brave Allies and ourselves over the delimitation of our respective possessions in the centre of Africa are now doubly certain of amicable arrangement, since the possibility of any opposition from the Darfurians is completely eliminated by their having lost their independence. Verily, "the whirligig of time brings in his revenges."

Desirable as the possession of Darfur may be considered, and valuable as it undoubtedly should prove as an addition to the territories of the Anglo-Egyptian Sudan, it is not to be supposed that the Government entered upon its conquest with a light heart. For many years every effort had been made to bring about the suppression of the slave trade and respect for the frontiers without interfering with the native Government—deplorable as this had proved itself in many respects—or with any idea of its overthrow. The Sudan Administration, with becoming consideration for a line of Sultans which had ruled for some four hundred years in an almost unbroken line, exhausted every diplomatic and friendly effort to reconcile the apparently irreconcilable; it was only when the ill-advised Ali Dinar broke out into open revolt and completely defied his "suzerain" that armed interposition became inevitable.

The conquest of Darfur took place in the summer of 1916. Ali Dinar, after taking to flight across the desert, was chased by an aeroplane and finally killed in the region between Jebel Morra and Dar Sula on 6th November. His sons were captured shortly before, and 1000 of his men were killed.

Hundreds of years ago Darfur, which has throughout retained its original name, formed one of the long line of African kingdoms which stretched across the continent from west to east, of which Abyssinia and the Republic of Liberia are now the only ones still retaining their independent state. Until the commencement of the eighteenth century, the Darfur Sultans held sway over the country as far east as the Atbara River; but their ancient enemies, the warlike Fungs—at that time one of the most powerful tribes in the Sudan—gradually drove back the weaker Darfurians, and established their own authority upon the banks of the White Nile.

In taking over the peoples of Darfur, together with their country, the Sudan secured but a proportion of the original inhabitants. Previous to the Mahdi's revolt the population of the country was estimated at considerably over two millions; following upon the time of that fanatic's death

and the defeat of his successor, the Khalifa, the number of people had been reduced by murder and starvation to well under 1½ million; whole tribes like the Maharia, the Nawaiba, the Mahamid, the Ereigat, the Beni Hussein, and others, were either completely exterminated or so reduced in strength as to be hardly heard of. The Masavat and Kunjara tribes, the ruling class of Fors, are to-day the most numerous, having their centre at El Fasher, while other important tribes are those of the Zaghawa and Zeiadia, the Beni and Kaja, the Beni Helba, the Habbania and the Taaisha. This last-named is one of the Baggara Arab tribes, and claimed the infamous Khalifa Abdullahi bin Sayd Mohammed as one of its members.

None among the heterogeneous peoples of Darfur welcomed the addition of their country to the Anglo-Egyptian Sudan more warmly than the Beni Gelul, a fairly numerous tribe, who were forced to fly for their lives from the tyranny of the deposed Ali Dinar as late as April 1914. A large party of these people arrived at Nahud with their families and property from El Fasher, where their treatment had been most cruel. Like the Hebrews of old, when fleeing from the vengeance of Pharaoh—"who would not let My people go"—these unfortunate creatures were pursued to the confines of the Sultanate—and, indeed, even across the Sudan border—by a force which had been sent by Ali Dinar to take them back to El Fasher, and where, no doubt, a painful punishment awaited them. A fight ensued between the two parties, which cost the escaping tribe some few of its best men and the Sultan's force a much graver loss. In their flight the refugees suffered much hardship, many of their number dying from thirst. When news of their approach reached Nahud, the Inspector, accompanied by the Mamur and a force of police, went out to meet and succour them. Orders were sent to the owners of the wells situated on the road to render every possible help and to supply water to the whole party free of charge. It is thus that the Government shows its humanity and justice towards the less fortunate peoples of the Sudan, and it is certain that such humane acts are not soon forgotten.

The Beni Gelul, like the Fors, form a very industrious and peaceable community, clean in their habits, and law-abiding. Any day they may be seen sitting under trees spinning, weaving cotton, or plaiting mats, while the children will perhaps be herding the cattle. They live in *tukls*, or conical huts, made of grass and palm branches, five or six of which arranged in a circle form "a habitation." Compared with some of the tribes inhabiting Darfur, the Fors are a remarkably clean-living people, being very particular in regard to the manner in which their food is served ; withal, they are a religious but fanatical set, studying the Koran assiduously. Under their new masters they have permission and encouragement to continue to live unmolested their own lives in their own way.

In respect of the economic advantages accruing to the Anglo-Egyptian Sudan by reason of the absorption of Darfur within its borders, there can be no doubt that these are very considerable. Nor will they prove entirely ours—for the French will derive great benefit from the country being thrown open to their trade and commerce as it never had been, nor could be, under the régime of the ex-Sultan. He had succeeded in almost completely stopping the valuable caravan trade on the Tripoli-Ain Galaka road, Ain Galaka being 200 miles from the nearest point of Darfur territory, with administered French territory between. In such a country as this, caravans must necessarily reckon the free-booter among the dangers of the road ; but of late years the peril had become almost intolerable, and all commerce seriously threatened. Now, however, transport has not only been restored and rendered as safe as in the Anglo-Egyptian Sudan itself, but by means of railways the whole country with its suspected, but as yet undeveloped, resources, can be gradually opened up.

As far back as 1860, at the time that Said Pasha was the ruling power in Egypt, there was an idea of building a line from Debba to El Fasher, the capital of Darfur ; even while things remained bad in the Sultanate it was thought that a railway, prolonged from El Obeid, might prove to be a good thing and help to put an end to the reign of disorder pre-

vailing. There is little doubt that the Government will again take up the project, and find the necessary capital to carry out the long-contemplated project. From the fertile valleys of the country can be gleaned rich harvests of wheat, cotton, sesame, and tobacco ; upon its limitless plains can be grazed millions of head of cattle—these, indeed, have always formed the main source of wealth of the people. The central mountainous district, which is well watered, is capable of yielding barley, dukhn, melons, pumpkins, and almost every other kind of vegetable. Camel - breeding, also, once a pursuit of considerable importance among the Arabs, is again a profitable industry, while sheep, although giving but little wool, are usually very good from a flesh-producing point of view ; horses, goats, and donkeys can also be bred in this country with exceptional advantage. The late Sultan, if I recollect, had a very well-managed and successful stud-farm in the Zeiadia district, which he had organised with the object of improving and reviving the breed of horses. Altogether, the prospects of Darfur under its new administration are brighter to-day than they have been at any time during its four hundred years of independent history.

CHAPTER XLIV

Halfa Province—Physical features—Population—Industries—Wadi Halfa—Historical associations—Wolseley and Kitchener—The railway—Official residences.

Kassala—Physical features—The desert—Mountains—Curious characteristics—Vegetation—Egyptian and Italian rulers—Dervish attacks—Gallant Italian defence—Former trade and agriculture—Kassala fort—Old Kassala—Italian garrison—Egyptian battalion—Desecration of ancient mosque—British restoration—Gedaref—Picturesque appearance—The rains—Difficulties of locomotion—Prairie fires—Military station—Old soldiers—Gallabat—Mafaza—Sofa.

" THE PROVINCE OF HALFA

THE province of Halfa, although much larger than that of Berber—the superficial area of the two being 112,300 and 98,000 square miles respectively—possesses but one-third of its population—38,325—being in fact the least populated of the provinces excepting the Red Sea. Physically, Halfa is extremely unprepossessing, while the soil is generally unproductive, and the people, as a consequence, are poor in the extreme. The great importance of the province at one time was due entirely to the fact that the headquarters of the Government railways were situated at the town of Wadi Halfa; in 1906, however, these were removed to Atbara, and with that drastic change much of the trade of the province and all that of the town departed. Even the fact that a royal princess, Louise, Duchess of Argyll, visited Halfa in that year failed to bring much consolation, and most visitors who now pass through *en route* from Egypt to Khartoum find little inducement to linger beyond the brief time scheduled between the arrival of the steamer from Shellal and the departure of the train for the south.

The population of Halfa consists almost entirely of

Berberines—nearly 30,000 out of the total of 38,325—the province containing no nomad tribes if one excepts a few of the Kababish from Dongola who reside there, but still pay their tribute to the adjoining province. The only important trade carried on is in connection with the cultivation of the date-palm and the marketing of the dates, for which there is a constant demand in Egypt. Fortunately, the people are not entirely dependent for their livelihood upon agriculture; were this so, the distress prevailing among them during bad seasons would have been immeasurably increased. A considerable number of the male population earn a living abroad, and as a general rule they transmit substantial portions of their wages to their families in Halfa. Doubtless fairer times will dawn for the province; in days past, it had managed to do tolerably well. At more prosperous periods the population increases perceptibly; but in days of stress and privation thousands leave to try their fortunes elsewhere. •

It is at Wadi Halfa that the traveller coming from Egypt gains his first view of the Sudan. The town formerly marked the limit of the rule of the ancient Egyptians on the south, while the famous forts of Semnah and Kumna, which lie at a distance of 35 miles from the Second Cataract, are now known to have been merely advanced outposts. Here by the end of November 1884 had passed through the 7000 Egyptian troops forming part of the first Sudan Expeditionary Force, under Sir Herbert Stewart, while the 11,000 British troops under Lord Wolseley were transported between Assiout (sometimes spelled Asyût) and Wadi Halfa, a distance of 550 miles, by Messrs. Thomas Cook & Son, of which firm the late Mr. John M. Cook (who died in March 1899) was then the capable head. So well did the tourist agents carry out this contract that some authorities, among whom is Mr. Royle, author of *The Egyptian Campaigns*, have declared that had Cook's been entrusted with the relief of General Gordon they would have succeeded in bringing him safely out of Khartoum. This statement, however, seems somewhat incredible. •

At Wadi Halfa it was determined, in after years (1897),

to commence the long line of railway which was found absolutely necessary to overcome the difficulty of transporting the troops of the second Expeditionary Force. Abu Hamed was the objective point. By the time that the railway track had reached but half-way from Wadi Halfa the Dervishes—who infested the whole district—had been seriously defeated by General Hunter, no fewer than 1300 of the enemy being killed and wounded out of a total of 1500. The line finally reached Abu Hamed on October 31, 1897.

Wadi Halfa has long ago written "Ichabod" above its portals; as already explained, since the railway was extended to Abu Hamed and Atbara its principal *raison d'être* has ceased. Nevertheless there remain some attractive buildings, such as the official headquarters and a number of cosy bungalows, surrounded by small but well-kept gardens, belonging to the European element. Trees, which were planted twenty years ago—including sycamore, lebbek, wild fig, and acacia—give the town a semi-tropical aspect, softening the effect of the many crude and ill-constructed native hovels which it still contains. Australian eucalyptus trees have also flourished apace in Wadi Halfa, the strong perfume mixing pleasantly with the more delicate odour of the many roses which bloom in the Sudan practically all the year round.

Lord Kitchener, when Sirdar of the Egyptian Army, occupied one of these pleasant little Wadi bungalows, while the Intelligence Department, the Military Commandant, and the Headquarters Mess at that time also possessed agreeable and commodious quarters. There still exists a public square with several well-kept trees and flower patches, while new Government Offices are about to be erected upon a site which will add to the general appearance of the town. The site of the once wide-stretching, busy military camp, where fifteen thousand men could be easily accommodated, alone remains; all traces of the military constructions have long since disappeared.

A severe epidemic of cholera broke out in Wadi Halfa in the year 1896, when several thousands of the population succumbed. There is now a large quarantine station situated

at a considerable distance up river, but so free has been the district from any kind of sickness since that there has been hardly one case of illness under treatment.

THE PROVINCE OF KASSALA

The province of Kassala, with a total population of 84,000, while not ranking among the larger of the divisions, is undoubtedly one of the more interesting. It promises, moreover, to figure prominently in the history-making of the Sudan, mainly owing to the proposed railway connection which, when completed, must inevitably serve to open up the dormant resources of its 44,900 square miles of territory.

The province has several natural difficulties with which to contend. While no one among these can be considered as insuperable, it will require both time and capital—especially capital—to overcome them. The irregularity of the water supply has, for instance, to be faced and provided against; while during the prevalence of the rainy season—June to October—many parts of the country become impassable (sometimes for weeks together) owing to the badly cracked soil and the numerous khors which collect and hold veritable lakes of water. Quantities of dense bush, mostly useless, such as kitr, will also have to be destroyed if the fullest advantage is to be derived from the splendid pasturage lands to be found in this country. Even under present circumstances, however, the province of Kassala offers great pastoral advantages. Here may be seen vast herds of horned cattle, goats, and camels feeding contentedly upon the luxuriant grasses which flourish. In the dips and depressions where the rain waters have collected, rich and succulent herbage in abundance is met with during several months of the year. In the dry season quantities of milk, as well as of meat, may be purchased at extremely low prices. Immense herds, which belong principally to the Shukria Arabs, under the rule of the Sheikh Abu Sin, graze about the Meshra Khashm-el-Girba district, one of the most picturesque localities to be found in the whole country. The Mogatta and Tomat neighbourhoods are

equally well stocked with fine-looking cattle, all apparently very well cared for and bred from recognised stock.

Another tribal family reputed to be wealthy in cattle is that of El Taib Abd-el-Salem, under the sheikh of El Soba. These Arabs were among the first to join the Mahdi, no doubt for the main purpose of assisting in pillaging their defenceless neighbours ; and it is easy to understand not only how they then became as wealthy as they were, and still are, even now that Mahdism is but a memory, but how it arises that they still maintain a certain authority over the country east of Um Dibban. Equally simple is the explanation of the ruling power wielded and of the wealth of cattle owned by the Shukria Arabs in earlier days.

From a scenic point of view the province of Kassala has likewise something to offer, especially in regard to some ranges of mountains of a particularly curious formation.

The peculiar masses of rock known collectively as the "Jebel Kassalâ" (2600 ft.), and of which Kassala and Mokram are the most lofty peaks, form part of the Abyssinian range, although entirely detached and separated by a considerable stretch of open level country. With the exception of the famous rock which takes its name from the province (or which the province borrows from the mountain), few of the eminences are picturesque in appearance, and none rank as of any great importance. The bases are usually well covered with thick vegetation, which during the rainy season grows with great luxuriance and to a considerable height. Indeed, the increase in a single season has been known to exceed 12 or 15 feet ; the usual height of the grasses, however, ranges between 2 and 6 feet. These grasses form excellent fodder for cattle and sheep.

The curiously shaped rugged mountains of the Kassala Province encountered—sometimes close to, and at others several miles distant from, the main camel track leading from Kassala to Marmân—recall to mind somewhat similar formations in Rhodesia, South Africa, more particularly those enormous granitic formations met with between Salisbury and Umtali, upon the long stretch of railway track (374 miles) from Salisbury to Beira.

The different classes of trees comprise the talh and hashab, and the gum; while the grasses include the gau, shush, aada, naal, um-denaib, laot, kitr, and saut. Both jungle and bush become extremely dense, and any inexperienced sportsman leaving the main track in pursuit of game, such as antelope or guinea-fowl, which find refuge there, should take good care to keep in constant communication with his party by frequent whistling or by some other form of signalling. To become completely lost in the Sudan bush within a few hundred yards of a main track becomes *simple comme bon jour*.

The province of Kassala possesses historical associations of no small interest. The town bearing the same name, handed over to the Anglo-Egyptian Sudan by the Italians in 1897, had been in their possession since 1894. In this province, in 1898, was fought the important battle of Gedaref. Near El Fasher ford, located on the right bank of the Khor Ghash, is the site of the post which was held by a detachment from the Kassala garrison in that year.

The town, which no doubt is old, occupies the site of an Egyptian fort, still intact. The imposing mountain bearing the same name upon ordinarily clear days can be perceived 60 to 70 miles distant, while at 5 miles away the traveller who approaches the town from the Gedaref-Kassala road can see the minaret of the Khatmia mosque standing out clearly to the right, and an old factory chimney constructed of burned brick looming immediately in front of him. This wholly unexpected evidence of a settled civilisation, coming suddenly into view after a prolonged acquaintance with bare Nature in the wilderness, has a strange effect upon the minds of most travellers.

Under Egyptian rule the history of Kassala appears to have been somewhat sanguinary. The garrison seemed to be continually breaking out into revolt, doubtless as a result of the unjust and cruel treatment to which they were subjected by their Turkish officers, and upon at least two occasions a deliberate massacre of a great part of the garrison was ordered by the commanding officer.

If the province of Kassala can boast of a fair proportion

of promising agricultural and pastoral land, its area also embraces a vast amount of waste territory composed of sand, rocks, and verdureless mountains. Scenery of an immense variety is passed through upon the road between the opposite borders of this one province—level plain, with scattered and sometimes thick bush; deep ravines, torn out of the ground by torrential streams, the banks and (in the dry season) the beds of which are thickly strewn with tropical trees and many beautiful parasitic plants; precipitous granite hills, and others formed of an almost flat white rock, probably outcrops of limestone; and innumerable rounded hills, covered with loose stones, and, perhaps, here and there a few stunted baobab-trees. On the other hand, the eastern faces of the mountains, which slope towards the sea (commencing in the province of Kassala and continuing into that of the Red Sea), bear a considerable amount of coarse vegetation, thus presenting a strong contrast to the completely barren appearance of most of the other ranges.

Khors (dry river-beds) are especially numerous in the Kassala Province; those in the plains have mostly ill-defined, shifting channels, while those among the hills are clearly perennial mountain-stream beds. Some of the khors—such, for instance, as those of Baraka Caageb, join others, and, during the rains, spread their swollen waters to a width often exceeding one mile, and even then occasionally overflowing their customary banks. In the long, dry season (October to April) the channels with but few exceptions are thickly wooded with bright green tamarisks and many dom-palms, handsome and shady trees whose protection from the glare and heat of the fierce African sun is much appreciated by tired travellers, who mostly select these khors for their camping-ground.

The old Italian fortress still standing at Kassala, a town which formerly was geographically situated in Eritrea, is in shape a rectangular vallum of burnt mud brick, covering an area of about five acres. At the north-west and south-east corners is a redoubt with old field-guns, and on the east side there is an exceptionally strong gateway provided with an iron drawbridge. This spans a wide ditch or fosse—now

quite dry—which surrounds the walls on the north-east and west sides. Formerly there existed a series of high zeribas, formed of thorn-bushes, considerable broken ground, and a maze of wire entanglements. The garrison consisted of a battalion of native levies, assisted by details of Italian commands, in all about 800 to 900 men with 20 officers. An ample commissariat was maintained, and an abundance of good water provided, so that the fort could have held out almost indefinitely against the Dervish attacks.

When the town of Kassala came under Egyptian rule (December 25, 1897) attention was at once devoted to the cultivation of cotton, for which the rich loam soil is well adapted, as it is, indeed, for most forms of agriculture. A large cotton-gin mill was erected, the lofty chimney of which has been already referred to as visible for many miles before the town itself is sighted. During the military operations against the Dervishes this same chimney fulfilled a more useful purpose than any to which it had been previously put, namely that of a coign of observation; sentinels were posted on the summit, which they reached by a series of step-ladders arranged inside the chimney. The mill was found no less useful as a central keep and stronghold.

Old Kassala town, which for the past two decades has been in ruins, stood to the west of the Italian fortress, surrounded by a deep ditch, a part of which, together with a portion of the loopholed town buildings, still stands. There were four large outlying forts built of mud, which likewise remain almost intact, forming conspicuous landmarks against the curious background of the mountains—Kassala and Mokram—already referred to.

Kassala had been a happy and prosperous town long before the blight of Mahdism fell upon the country. But in 1896 a body of over one thousand fanatical, blood-thirsty Dervishes swept down upon Mogado, a small village some six miles from Kassala, slaying every human being and burning every hut in the place. The raiders had been less successful the year before at Kassala itself; thinking to find there a lack of resistance, they had determined to attack it. But they were greatly mistaken. The invested

town not only held out bravely, but the troops sallied out and gave battle to the enemy, who lost heavily both at Tukruf and at Mokram.

Agordat, an important town containing several thousand inhabitants, was also attacked furiously by the Mahdists in 1891-92, the number of assailants being placed at 10,000. The town held a garrison of 2500 regular and irregular troops, who offered a stout resistance; they were, however, seriously handicapped by lack of water, the Dervishes having taken up positions commanding the available wells, and subjecting all water-carriers to a murderous fire whenever they appeared. Finally a covered way was built for the water-carriers' protection, but not before the Dervishes had occasioned considerable further losses and trouble.

Kassala town was the scene of the important conference regarding the passage of Egyptian troops through Italian territory. The discussion was held between the Sirdar, Sir H. H. (later Lord) Kitchener and General Canevas, then commanding in Eritrea, in the month of November 1897. In order to share in this conversation and to see things for himself, Kitchener undertook the long and tedious journey from Berber to Cairo, thence to Suakin and Massowah, and so on to Kassala. It was due to Kitchener's far-seeing arrangements, combined with the valuable assistance rendered by the Italians, that the Egyptian troops (16th Battalion) were then enabled to march to their destination without any necessary delay or difficulties.

A very favourable impression is afforded by a visit to the Kassala Technical School—one of several similar Gordon College institutions in the Sudan. The lads are taught all they need to learn about joinery, carpentry, turning in metal and wood, engine running, wheelwrighting, fitting, and blacksmithing. The school building contains capital mechanical equipment, by means of which the pupils succeed in minimising the cost of maintaining the establishment.

As a rule, tuition is given free, the boys being also boarded and fed. The accommodation provided is excellent, the boys having rooms in an old school close to the Technical School; holidays amount to two months in the

year, but as a general rule the boys prefer remaining at work in the school shops to being at home. They are clean, healthy, happy-looking boys, affording an admirable example of the rising generation in the once "hopeless" Sudan.

A troop of enthusiastic and remarkably smart Boy Scouts has been raised by Lieutenant Sanford from among the sons of the N.C.O.'s and men of the Arab battalion; the boys are taught the ordinary routine work, such as the rendering of first aid, marching, drilling, semaphore signalling, etc. The lads appear keen and intelligent, and evidently take great delight in their work.

In the pre-Mahdi days a magnificent mosque stood at Kassala, known then, as now, as the Khatmia. That sanguinary iconoclast Osman Digna, to whom nothing was sacred—not even the prayer-house revered by the members of his own faith,—burned and defaced the beautiful structure, enraged to find that he could not tear down the solidly built walls.

One of the first tasks undertaken by the Anglo-Egyptian army of occupation in 1897 was to rebuild, as far as possible, the Khatmia mosque, always deeply venerated by the natives throughout the Sudan as containing the tomb of the celebrated Persian missionary, Sheikh-el-Morghani, who, with an equally famous brother, had done much to convert pagan Africa to Mohammedanism. Moreover, his descendant, Sidi Ali Morghani—then living in Egypt—was sent for, and installed as custodian of the tomb and mosque of his ancestors. This move proved very tactful, since it at once caused the new Administration to be both esteemed and trusted, while inflicting a further deadly blow to the holy reputation and influence of the Khalifa.

The good seed then sown bore remarkable but not altogether unexpected fruit in the latter days of 1914, when the outbreak of the war in Europe was made the occasion by German agents in the Sudan to spread disaffection and rebellion among the Moslem peoples. It was then that the great chieftains—such as the Morghan²—proved the loyalty that had so often been expressed to the Administration.

Among others who spontaneously reaffirmed their expressions of fealty and devotion was Sir Said Ali Morghani, K.C.M.G., then at Kassala. He addressed to the Governor-General a characteristically friendly and reverent letter, in which he again declared, and with even more emphasis, that "we of the Sudan whole-heartedly participate with the Empire in all her troubles," concluding with the pious expression—"We ask God to make the issue of this war victory for the Empire, and we pray for the success of His Majesty the King and the brave men of the Empire."

Much has been effected to improve the appearance of Kassala town. It is clean and orderly, and the population, numbering 35,238, form apparently a thriving and well-conducted community. The inhabitants of the outside district are reported to be rather less satisfactory, a certain amount of smuggling and poaching going on among them and causing much trouble to the provincial authorities.

The growing town of Gedaref, in the province of Kassala, is principally composed of a collection of about five small disconnected villages inhabited by Sudanese, Arabs, Abyssinians, Greeks, and some Hamlar tribes. The entire town population is probably under 8000, but the district as a whole is possessed of nearly 30,000 people.

In the pre-Mahdist days Gedaref and the whole of the surrounding district formed a smiling, fruitful, and peaceful countryside. After the Dervishes had afflicted it with their pestilential attentions the place became a desert. In 1885 it was devastated almost from end to end, the garrison was captured and numbers of the inhabitants were put to death. Again in 1898, the district became the scene of armed conflict, the town being seized by a small column from Kassala under Colonel Parsons, who held it gallantly against the repeated attacks of Ahmed Fedil until relieved by a force sent to his succour from the Nile.

The approach to the town affords an agreeable prospect, following after a long stretch of uninteresting country and lands through which the traveller has been compelled to pass before arriving at either end. Decidedly picturesque is the collection of dome-roofed huts, constructed of dried

dura-stalks and neatly thatched with grass. Each hut is surrounded by a small palisade made out of the same crude materials, the whole settlement nestling pleasingly against a background of waving date-palms and bright green thorn-trees.

The town of Gedaref hitherto had not been built upon any recognised plan, and some of the streets or roadways deviated slightly from the general design. In the year 1913, however, a new and definite building plan was decided upon, and the District Engineer visited Gedaref in order to see the same put into execution. A number of brick-built houses and a colonnade of one-story shops have latterly been erected, while a civil hospital constructed of hollow concrete blocks and a well-designed, comfortable mess-house built of brick and wood, consisting of several commodious rooms and a wide verandah, destined for the use of the officers, form part of the town's more recent constructions.

Care has been taken to raise the principal highways to some height above the flattish plain upon which the town stands, since during the rains, which fall here between May and September, the low ground becomes a quagmire. The highways are constructed upon a stone-and-rubble foundation, are stone-edged, and as a rule measure between 20 and 30 feet in width. Several wells of good sweet water exist. A constant water-supply is thus available, free of cost, to all the inhabitants.

During the more violent period of the rains it is practically impossible to travel about the surrounding country owing to the nature of the soil. After a continuous down-pour the water collects in deep pools, the long-parched earth being unable to absorb the enormous amount of water precipitated upon it. Slight depressions soon become lakes, mere ruts develop into mill-races, and dry khors—natural gullies—are rapidly converted into fast-running rivers, entirely unfordable. For at least twelve hours after a heavy rainstorm no riding animal can make any progress, and but few attempt to travel beyond the limits of the town into the open country beyond.

Prairie fires are not uncommon in the Sudan, where the intense heat of the sun reduces vast areas of high dead grass to a readily inflammable material. Besides the ever-present danger arising from flying sparks blown from a traveller's camp-fire, certain natives deliberately set the grass on fire for the sake of the short, sweet, and green growth which springs up almost immediately after a conflagration has swept across the country. Upon occasions as much as 50 square miles of territory have been thus devastated. The Government and individuals alike have suffered serious financial loss from the acts of "fire-bugs," whose detection and apprehension are usually most difficult to effect.

The Arab battalion which has its headquarters at Gedaref comprises four adaras (each having two infantry companies of 114 per company, and a mounted infantry section of 16 men, with 12 mules and 29 camels). In addition, there are the section (composed of 32 men and 30 camels) of mountain artillery, equipped with two 7-cm. Krupp mountain guns, with necessary camel transport, and the camel company of 134 men and 146 camels.

Gedaref ranks as an important military station, the permanent Arab battalion being kept here in order to control the long stretch of Abyssinian frontier adjoining. At the time that Kassala was transferred to the Anglo-Egyptian Sudan, some 350 men, who had formed part of an Italian regiment, were also transferred. Several of these continue to serve, and are found to be excellent soldiers. As much as fifteen years' uninterrupted service can be claimed by some among them. The pay drawn by these latter amounts to fifteen piastres (about 3s.) per diem, out of which allowance they must find their own food. But the cost of this amounts to a very trifling sum. Several of the men have saved considerable sums of money, and these they have profitably invested in cattle. The well-conducted long-service men are granted eighty days' leave during the year; frequently they employ this vacation by walking the whole way to Abyssinia to visit their families, and back again to rejoin their regiment. The distance covered amounts to nearly 200 miles in either direction.

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Gallabat town, known to the Abyssinians under the name of Matemma, is located at the foot of a steep slope upon the left bank of the Khor Abnaheir, and this constitutes the Abyssinian boundary line. The town, which is considered of great importance from a trading point of view, has witnessed a long succession of sanguinary conflicts between the several tribes who dwell upon either side of it. The Dervishes fiercely attacked it in 1886, while three years later King John of Abyssinia waged a great battle with them there, between 80,000 and 100,000 Abyssinians being engaged. Nevertheless the Dervishes won a victory, and occupied the town. The conflict resulted in the complete ruin of the flourishing trade hitherto carried on, but under the peaceful government of the present Administration trade has revived, and once again has become of some importance.

Coffee, although in no way comparable for quality with that of Gambela (Abyssinian border), forms one of the principal articles of commerce. Abyssinian coffee is now practically a monopoly of the Sudan market.

Mafaza town, the seat of a Mamur, is a small village situated upon the Rahad River, and forming the centre of the local government of the Rahad district, and much frequented.

The most agreeable halting-place upon the highway between Gedaref and Kassala, except when the wind blows with its accompaniment of clouds of gritty sand and dust, is the native village of Sofi, situated upon the banks of the Atbara, almost forty miles from Gedaref and one hundred and fifteen from Kassala. The jaded traveller is not only thankful to spy from afar the whitewashed walls of the square, stone-built rest-house, standing upon a broad stone-paved platform and commanding a full view of the picturesque river below, but he knows that here he will find the last really comfortable and convenient accommodation until he shall have reached the end of his long and arduous journey.

The village of Sofi is unlike any other that I have seen in the Sudan, inasmuch as it is not built upon any recognised

plan, nor occupies any defined area. The town site is the uneven, dry river-bed and its steep banks, the dome-roofed straw *tukls* of the natives being perched here and there, wherever the taste or the inclination of the individual owner has dictated. The inhabitants for the most part seem to be thoroughly contented and happy, peacefully cultivating their not inconsiderable patches of dura, rearing goats, and fishing in the well-stocked waters of the river. Water-fowl, guinea-fowl, and numberless doves may be shot, in addition to various species of antelope and other game.

At a distance of about half a day's march from Sofi one may reach Tomat, a small village situated upon the opposite side of the river, and in a locality even richer in its variety of wild life. Gazelles by the score come down to the river to drink; the roar of the lion and the leopard is an all-day-and-night experience; while many hundreds of large, shaggy baboons, said to be quite harmless, but unfriendly in the extreme, make this part of the river their haunt. Crocodiles of enormous size infest the waters, especially during the dry season, and may be "potted" by dozens. It is as well, however, in the pursuit of them not to walk too near the brink of the river, for these hideous animals have been known to make a concerted rush upon some unsuspecting venturer, causing him to fall into the river, where his chances of escape from the jaws of the ferocious brutes were practically *nil*.

CHAPTER XLV

Province of Khartoum—Khartoum North—Geili—Omdurman—In the days of the Mahdi—Charles Neufeld—Condition of thoroughfares—Khartoum in 1847, 1850, 1860, 1885, and 1898—Former population—Early commerce—A garden city—House gardens—Palace gardens—Governor-General's official residence—Palace hospitality—The new and old Khartoum—Streets, roads, and avenues—Open spaces—Public buildings—Municipal services—Water-supply—Women water-carriers—Governors of Khartoum—Private residences—Bachelors' diggings—Hotels: Difficulties of management; the Grand; the Gordon; the Royal—Building plots—Price of land—Land boom of 1907—The collapse—Climate—Town improvements—Public holidays—Sanitary Board—Drainage system lacking—Sanitary administration.

THE province of Khartoum is the smallest of the fifteen different political divisions of the Anglo-Egyptian Sudan, albeit, by reason of containing the seat of the Central Government, it ranks as the most important. The superficial area is about 5000 square miles, while the total population slightly exceeds 135,000 (1913). The four Mamurias consist of Khartoum City, Khartoum North, Omdurman—known collectively as "The Three Towns"—and Geili.

Topographically the surrounding country is absolutely flat and very sandy; but the River Nile offers compensations in an otherwise ugly and uninteresting landscape. It is at Khartoum, almost immediately opposite the city, that the Blue and White Niles meet. The Blue stream having come down some 460 miles from Famaka, where it first enters the Sudan, and flowing, in conjunction with the White Nile, for a farther 540 miles, makes up the total length to 1000 miles.

In 1914 the boundaries of the Khartoum Province underwent considerable alteration. From the Shabluka northwards was handed over to the Berber Province, thus round-

ing the Shendi District. The Gebel Auli District, on both sides of the White Nile, was taken over from the White Nile Province, a most important change, which has since proved of great advantage to both Government and natives. The Gimoia tribe is now united under the Omdurman District, a marked improvement in the situation having later become noticeable.

Khartoum North is the seat of the official and the industrial element, and a principal trade centre. Formerly it was known as Halfaya, and is still so spoken of by the natives. Until a few years ago it served as the terminus of the railway from Halfa, but ceased to be so regarded when the line was brought into the Central Station at Khartoum City. The town contains many Government storehouses, workshops, barracks for the Egyptian troops (consisting of both infantry and artillery), the dockyard of the Steamers and Boats Department, the Custom-house, and numerous other buildings of an official character. In addition to the handsome iron bridge which carries the railway across the river, communication with Khartoum City is maintained by a steam tramway running every thirty minutes throughout the day. The population, estimated at something over 2000 in 1905, to-day amounts to 30,000.

The village of Geili is situated on the right bank of the Blue Nile, some twenty-eight miles north of Khartoum North. The inhabitants are mainly of the Gemaab tribe—a branch of the Jaalin—and were formerly governed by one of their own members, Zubeir Pasha, the notorious slave-dealer. Zubeir lived for many years at Geili, where he possessed a handsome residence. The nearest railway station—located at Wad Ramla—is about one and a half miles distant, and some 547 miles from Halfa.

The teeming city of Omdurman, with its evil reputation during the time of the Mahdi, its famous battle of 1898, and its numerous native industries, forms undoubtedly the most interesting of the Sudan's "show-places." The eyes of the visitor almost intuitively direct themselves to the long, low ridge of the Kereri hills lying to the north,

which mark the scene of the great and final struggle against the Dervishes, the winning of this contest freeing the Sudan for ever from barbarian rule. The native town, some little distance away, covers an immense area, over six miles in length by nearly two miles in width, the eastern frontage following the river bank throughout. Several of the original Dervish houses still stand, notably those of the Khalifa Abdullah and his brother Yakub; while the Beit-El-Amana, or Mahdi's Storehouse, which during that potentate's rule was usually filled to the roof with property stolen from his unfortunate subjects or captured from his enemies, is yet in a state of good preservation.

The Mahdi's tomb—now a partial ruin—was intentionally destroyed by order of Lord Kitchener, so that it could not be any longer regarded as a "holy" place by fanatical Arabs. To still further prevent any kind of posthumous worship of the defunct Mahdi, his body was disinterred and destroyed; undoubtedly an extremely wise measure which has prevented possible trouble to the present Administration.

In the days of the said Mahdi, Omdurman was a huge city of squalor, filth, and disorder; the condition in which the British troops found it when they entered the town on September 2, 1898, is said to have been beyond description. No effort was ever made by the Dervishes to institute sanitary observances; dead animals of all kinds—camels, horses, donkeys, dogs, goats, sheep, cattle, side by side with refuse in all stages of putrefaction—lay about the wider streets and the numerous tortuous lanes which existed then, and, in some of the old parts of the town, exist still. The bodies of dead men, women, and children were also found lying unheeded in the open, while innumerable wounded were met crawling in and out of the wretched hovels which had formed their homes.

A rectangular stone wall enclosed the Khalifa's quarters, and within this area were stationed his mulazimin—his bodyguard's quarters,—his granaries, treasury, arsenal, the Mahdi's tomb, and the immense praying-square which served the faithful as a mosque. The prisons were filled

to overflowing, among the captives being the German traitor and spy Charles Neufeld, who had been in the Mahdi's clutches for over twelve years. As soon as Generals Kitchener and Wingate entered the town of his captivity they struck from his maimed and bleeding wrists the heavy iron fetters which he had worn for so many years. We all know how this typical Teuton rewarded the British both before and during the late war?

The town of Omdurman was found so unsanitary that the victorious British troops were compelled to pitch their camp some distance away, on the northern outskirts. The first duty entered upon was to clear the place of much of its filth and debris. Gradually order was produced out of chaos, and Omdurman to-day may be given a clean bill of health. A clean town it now is, but nothing short of complete reconstruction can ever make it a handsome one.

Formerly, as now, Khartoum was the seat of a dual administration,* that of the Governor-General and that of the local authority and local Governor. In 1847, following the visit to the Sudan of the Viceroy, Ismail Pasha, each province governor was instructed to communicate directly with the Egyptian Minister of the Interior at Cairo. Then also, as now, a Grand Kadi combined the joint duties of high priest and religious judge, holding his court at Khartoum, the tribunal being composed of himself, a mufti, and a considerable staff of ulemas and scribes.

The population of Khartoum City in the early 'fifties was said to have been under 60,000. In 1911 it had been estimated at 61,380 (*i.e.* Khartoum 22,680, Khartoum North 38,700). To-day it barely exceeds 48,000.¹ The older houses were constructed of crudely made sun-dried bricks, the majority being of but one story, although some few boasted of two stories. The buildings belonging to the Government occupied no small area, the only stone-built construction being that erected by the early Austrian Roman Catholic Mission. The majority of the streets were narrow and tortuous; no recognised order or system of house construction had been attempted. There were

¹ Including Khartoum, 28,924, and Khartoum North, 19,495.

at this time fewer than half a dozen European residents in Khartoum, but by 1860 the number, exclusive of the members of the Austrian Mission, had increased to twenty-five. These foreigners, mainly interested in commerce, were French, Italian, or German subjects; only one or two Englishmen were to be found there, although several Levantines and Maltese were living under British protection.

Sir Samuel Baker, who visited the town in 1862 and again in 1870, described it as "a miserable, filthy, and unhealthy spot." Undoubtedly it must have been all that. In 1885 the whole place was destroyed by the Dervishes, and it remained a ruin until Kitchener with his victorious troops came in 1898 and practically rebuilt it. This must have appeared an almost hopeless task, and probably would so have proved to any but the indomitable soldier who had won back the country from savagery; like his prototype Napoleon I., one may imagine the triumphant Kitchener exclaiming—"The word 'impossible' is not to be found in *my* dictionary."

The commerce of Khartoum in those times was of some importance, since, with the exception of Kordofan—which drew the greater part of its supplies direct from Cairo, *via* Dongola—Khartoum served as the principal depot of the Sudan for the whole of the European and Indian merchandise which entered the country *via* Suakin, Berber, and the Nile.

The imports for the most part were composed of Manchester goods, hardly any cotton from Egypt being then found in the Sudan, while the exports were principally ivory from the White Nile, gum arabic, ostrich feathers, bees-wax from Abyssinia, and hides.

A distinguished traveller—Prince Puckler-Muskau—who visited Khartoum in 1837 thus described the place: "Khartoum lies at the angle of the fork which is formed by the junction of the White and the Blue Nile. Its lofty mosque and battlemented walls give it an imposing appearance at a distance, but a close approach undeceived us, and we found its buildings, like those of all the towns in this region, only rude erections of clay without any dressing.

The environs are chiefly desert or fields, destitute of trees ; in the immediate vicinity alone we saw a few gardens, and, indeed, we had no right to expect more, for it is only within the last ten years that the capital of the Sudan first rose in the desert by command of Mohammed Ali."

Had this roaming prince lived to see the Khartoum of to-day he would not have failed to observe a great change in the number of gardens alone. The British residents of Khartoum and Atbara, for the most part, make a point of maintaining beautiful gardens, possessing, as they mostly do, the great *desiderata* envied by Swift—"a handsome house to lodge a friend, a river at my garden's end."

Where water is available the Sudan garden possesses one great advantage over an English or any other northern garden : it can be rendered beautiful to the eye all the year round. For three months of the year it provides a perfect blaze of glory—masses of brilliantly coloured blooms and variegated foliage, lacking only that luscious smooth grass which alone grows in very moist climates such as our own, and cannot be successfully cultivated under any other.

In January, one of the finest months in the Sudan year, the baubinia spreads its mass of pale mauve-pink blossoms, resembling the Judas tree in leaf, but of a large size ; March and April bring forth the scarlet hibiscus and the flame-coloured poinsettias ; while in May the garden is generally a blaze of rich colour contributed by the gorgeous gold mohur and superb white magnolia. The scarlet and magenta bougainvillea, the tall red and yellow spikes of the canna, the heavily scented clusters of the Egyptian laburnum, the dazzling white and yellow amaryllis, and the "Morning Glory"—a giant blue convolvulus which speedily covers a tree trunk or trellis with thickly massed leaves and flowers—lend still further brilliant colouring to the Sudan garden, which, however, is hardly ever seen at the zenith of its beauty by its English owner, since at the best time of the year he, or she, is generally away "on leave."

The whole year round, roses—roses white, roses yellow, and roses crimson—bloom in wild profusion, ladening the air with their exquisite perfume and providing a feast of

superb hues and tints when most other blooms are either dying or dead. The great drawback to a perfect Sudan garden is the lack of water ; this must be provided artificially, and at the cost of much labour—needs, however, which seem to affect the roses least of all, since they continue to bloom through the driest spells and without receiving any attention.

The great care which General Gordon lavished upon his garden during the few troublous months that he occupied the old Palace has been maintained by his successors, for the late Lord Kitchener, Sir F. Reginald Wingate, and Sir Lee Stack stinted neither money nor attention in beautifying these really charming grounds. Notwithstanding their limited area, the Palace gardens, by reason of the skilful manner in which they have been disposed and laid out, and also on account of the arrangement—accidental, perhaps, but extremely effective—of the numerous stately trees, in appearance afford an immense vista of brilliantly green turf, of extensive avenues, of groves and clusters of variegated trees, and of many flower-bordered walks—a vision altogether entrancing to the eye.

Whether by daylight or by moonlight these admirably-cared-for grounds appear equally attractive. Thanks to the abundance of Nile water now obtainable from the 3-inch electrically-driven centrifugal pump (replacing an old 10-inch chain pump), the Palace gardens present an ever-fresh appearance maintained even during the arid months of winter. Here one may wander entranced by the beauty of the many varied beds of brilliant hue, mostly bordered by lines of annuals and herbaceous plants, while fine groups of chrysanthemum, petunia, zinnia, cosmos—all old friends from our English gardens—dianthus, Heddewigii, balsam, *Dimorphotheca aurantiaca*, *Amaranthus Duffi*, celosia, nicotiana, *Phlox Drummondii*, canna hybrids, and golden coreopsis are met with in orderly but by no means stereotyped array.

In a soft, warm climate like that of the Sudan flowering climbers of all kinds naturally flourish particularly well, and the Palace gardens are rich in the possession of many

different specimens. The delighted eye wanders from the brilliant blue of Morning Glory to the exquisite pink of the *Antigonon leptopus* of the Sandwich Islands, while the delicate hues of the *Solanum Wendlandi* and of the no less beautiful *Beaumontia grandiflora* add further colour to the already exuberant wealth of floral magnificence.

Khartoum Palace was originally built by Momtoz Pasha, but without having received permission from the old Khedive, and by means of funds to the use of which—as Gordon has told us—he had possessed absolutely no right. Momtoz was duly punished for his extravagance; in the good old Egyptian manner of those days he was quietly poisoned. The building, as he had planned it, was extremely plain exteriorly, while it was furnished with but few comforts, and provided with still fewer conveniences, at the time that Gordon occupied it. The roof of the two-story building was perfectly flat, rising to some 40 feet from the ground. It was on this platform-roof that the horrible massacre of the Palace guard, servants, and kavasses took place when the Dervishes captured the place on January 26, 1885. Gordon, who had left the Palace roof in order to defend the staircase which led to it, fell—without, however, striking a single blow in self-defence—at the hands of one Taha Shahin, who plunged his spear into the body of his gallant enemy, first in front and then from behind, Gordon having deliberately turned his back upon the Dervish in disgust and scorn.

The exact spot where the hero of Khartoum fell and upon which his head was severed from the body, is distinguished in the modern Palace building by a small commemorative tablet.

The Palace, completely rebuilt since the beginning of the British occupation, is now a handsome but far from commodious building, well but not elaborately furnished, the chief attraction of the residence still lying in the beautiful and well-kept gardens. The Governor-General and his lady are extremely hospitable; they are but seldom alone. Apart from the frequent dinner and luncheon parties which they hold, they entertain many distinguished

visitors from abroad, and during the short season offer several pleasant official entertainments in the form of balls, receptions, and garden-parties.

The new Khartoum, so dissimilar in appearance and in comfort to the old, is the realisation of Lord Kitchener's well-thought-out plan, formed in 1898. What was initiated then, neither the designer nor any one else has deemed it necessary to change since. On the contrary, when in 1911 he again visited the capital of the Sudan to look upon the result of his work, "El Lord"—as the Egyptians designated their former ruler—saw that it was good; and so it was determined to persevere with the original plan of construction in its entirety.

Thus Khartoum has now become a well-planned town of broad avenues, wide streets, many handsome buildings and—no drainage. The general scheme of town building has been that of main avenues running parallel to the Nile intersecting others running at right angles and forming rectangles approximately 500 yards square. These rectangles are subdivided by three streets running each way parallel to the main avenues, and by the diagonal streets connecting the intersections of the main avenues. The limits of the original plan have long been reached, and the future development of the town will be almost wholly upon a similar footing. By these arrangements a girdle avenue will eventually surround the town, and the continuation of the diagonal streets will provide convenient radial communication with the central area.

A liberal width has been allowed to both avenues and streets. Although the initial cost was found proportionately higher, it was deemed necessary, in view of the intensely hot climate, to provide the houses with as much air movement as possible. The finest avenue—the Victoria—is 180 feet wide and centres upon the Governor-General's palace, from which point a remarkably striking vista to the south, with the luxuriant gardens in the foreground, is obtained. The handsome new Government buildings and the cathedral, in the immediate neighbourhood, complete a singularly imposing *coup d'œil*.

Had the original designers had their way, and had funds enabled them to carry their plans to a successful completion, Khartoum—or at least the first-class quarter of it—would have presented a very different appearance to-day. Unfortunately, the ambitious programme, which included a number of wide, well-paved roads, bordered upon either side by stately residences or Government offices, affording an agreeable shade from a double row of trees and offering a spacious, attractive thoroughfare for vehicular traffic, is still to be realised. The stately residences are there in some number, and the trees are rapidly becoming shade-bearers, but alas! for the attractiveness of the thoroughfares. The insufficiency of money—for which the authorities can in no way be held responsible—has prevented anything approaching a sound system of road-paving being introduced. All that has been accomplished has been the construction of several narrow paved slips running down the centre of the main avenues, the remainder of the roadway on either side being still in the bare, sandy condition of nature. The expense of metalling roads of such width as those to be found in the best quarter of the city would prove enormous, and it is little surprising that the municipal authorities hesitate even to talk of it. Their limited financial resources are taxed to the utmost to keep in a fair state of repair the few narrow strips of metalled surface already referred to. The residents, who contribute to the municipal rates in the proportion of 8 per cent on the amount of their house rent, would appear to have some justification for complaint regarding the condition of some of the roads through which they must perforce painfully trudge several times daily, in the full glare of an African sun, on their journey to and from their dwellings.

The Khedive Avenue, which runs at right angles, justly ranks as one of the finest thoroughfares in Khartoum; the width is 150 feet, and at the crossing stands the handsome Gordon statue. The main streets have a width of 120 feet and the secondary streets a width of 80 feet over all, while in the native quarter of the city the streets are built with central lanes, 12 feet wide, running through

them, principally for conservancy purposes. A system of nomenclature for the different thoroughfares provides for the addition of distinctive numbers. Thus all streets running parallel to the river are known by odd numbers, the embankment being "First Street," and all streets at right angles to the river are known by even numbers, beginning at the east end of the town with "No. 2 Street." Special names—such as "Atbara," "Omdurman," and others of a similar significant character—are bestowed upon the diagonal streets.

An exceptionally large number of open spaces, many being planted with the handsome dom-palm, are provided, especially close to the native quarters—a very necessary hygienic measure. It is intended to keep these and any other open spaces entirely unbuilt upon. Along the avenues, trees—mainly consisting of the decorative and quick-growing *Albizzia lebbek* with its brilliant green foliage and deliciously perfumed flowers—have been planted in double rows; the streets must need rest content with the possession of but one row. Other kinds of trees have been tried—such as the *Ficus bengalensis*, the *Ficus sycamorus*, and the *Kigelia aethiopica*—but none have done better than the *lebbek*, which grows to an immense size and becomes very umbrageous. Unfortunately the tree is deciduous, and at the time that it sheds its leaves a very untidy condition in the streets prevails. Each tree stands in a kind of basin formed from mud and earth, and is watered daily during the very dry season until such time as the roots reach deep enough into the soil to find their own liquid nourishment.

The finest buildings in or near Khartoum, in addition to that of the Palace, include the Gordon Memorial College, situated some distance from, but standing in its own beautifully-kept grounds on the banks of, the Nile, the Civil Hospital, the Law Courts, the Post and Telegraph Office, the Mosque, the Greek Church, the Cathedral, the Public Works Department, the British Barracks, and the Stores Department at Khartoum North. Many of these edifices, however, will be surpassed in effect when the new War Office building is finally completed.

The water-supply of Khartoum is both pure and abundant. It is connected to all European houses, hotels, and public offices, while the better-class shops and native houses likewise take the service. The bulk of the native population are supplied with water from street fountains, which, fitted with recording meters, are placed in charge of men who collect a small payment for the water drawn. A large number of native women patiently trudge for long distances, twice or thrice a day, to fill their water-vessels from the river, an endless procession of dingy-hued figures tramping steadily to and fro at all hours between the native quarter and the Nile banks, carrying heavily-laden jars—like so many latter-day Rebeccas—poised easily and gracefully upon the head and unsupported by as much as a single finger. The singularity of these silent, shadowy figures gliding noiselessly, mysteriously with their head-burdens through the bustling, noisy, electric-lighted thoroughfares of modern Khartoum has often struck me. It has suggested a scene from the pages of the Bible transported to the streets of modern Babylon.

When Khartoum can afford to introduce a main drainage system in place of trenches it will become almost a model city—quite the best in Africa from a sanitary point of view. In the meantime a very efficient conservancy system is maintained. Inaugurated in January 1907, the system has since been gradually improved; the treatment of the sewage is as good as circumstances will permit. A mechanical destructor has been in operation for several years; it is erected at a considerable distance from the town, and proves entirely inoffensive to the sense either of sight or of smell.

The Municipality of Khartoum, which was established by order of the Government in 1901, may be commended for the generally excellent manner in which the town is cleansed, lighted, and ordered; a great deal of the efficiency noticed has been due to the system which was introduced by Major E. A. Stanton, while serving as Governor of Khartoum. Finding the town little less than a pest-hole, he left it a clean, healthful, and pleasant city. The next Governor, Mr.

R. E. More, now the Sudan Agent stationed at Cairo, had eighteen years' experience as a Sudan public official, and proved no less zealous or efficient.

Housing and hotel accommodation still form questions of considerable importance for those whose steps direct them towards, or who reside in, the Sudan. The first-named problem is being gradually solved; whereas but five years ago it was found practically impossible to obtain a suitable house for even a small family, and quite impossible for a large one, to-day diligent concentration has served partially to relieve the situation. Rentals still stand high, however, and it is found more economical, and incidentally more agreeable, for a group of unmarried men to "dig together," and thus, by combining their resources, be in a position to maintain a more comfortable and somewhat more pretentious household. Several officers, and some few civilians, reside more or less—they would, but for the restrictive regulations existing, make it "more"—at 'the Khartoum Club.

The only towns in the Sudan in which hotels can be found to-day are Khartoum and Port Sudan. The public demand so far has not been, nor can it for some years to come be expected to prove, sufficiently large to warrant the erection of really commodious and first-class caravanserais, such as may be found in altogether superabundant supply at Cairo and other fashionable Egyptian resorts.

There are but three recognised hotel establishments at Khartoum, and no one among them can be described as altogether irreproachable. It is, however, essential to remember, and to make due allowance for, the extreme difficulties under which hotels are conducted in a comparatively new country wherein physical, climatic, and ethnological drawbacks have to be encountered and surmounted. In addition, the actual "season" enjoyed by the Sudan hotels is very brief, at the best ranging over but three months of the year—end of November to early March—during which short period profits, if any, must be garnered. The flow of regular visitors, such as tourists and big-game hunters, is as yet but uncertain and intermittent,

their arrival depending as much upon political and financial conditions prevailing in other parts of the world—and especially in Egypt—as upon transportation facilities offered in the Sudan itself. A low Nile, for instance, spells insuperable difficulties in river transportation; faced with disadvantages of this character neither tourists nor sportsmen can proceed very far upon their destined way south of Khartoum.

Hotel managements find many perplexing difficulties confronting them. The maintenance of an uninterrupted daily supply of fresh provisions is by no means easy, while the domestic servant question is perhaps the most serious of all problems—one which seems as little likely to be satisfactorily solved in the Sudan as in Europe, the United States of America, or in any other part of the world.

European domestics are to be found in one or two of the Khartoum hotels; they cannot, however, be regarded as representing the best type. Native servants, on the other hand, require careful training, a fact which needs but little emphasis when it is borne in mind that some of these domestics have been drawn from the ranks of individuals who, but two decades ago, were living almost like savages, or at least under conditions at variance with European ideas of civilisation.

That, with such material, so much in the way of training natives to behave properly and to dress becomingly should have been already accomplished, seems nothing less than astounding; by the process of evolution the next generation of Sudanese domestics should pass as exemplary specimens of their class.

Of the three recognised hotels in Khartoum the Grand is the largest and best known, having been the first to open its doors under a different name. From time to time the original building has been enlarged, and its service improved; if, to-day, it is not deemed to have attained perfection in regard to the latter requisite, the fact is perhaps due to the comparisons which indubitably, but somewhat unfairly, must be drawn between hotel accommodation offered at Cairo and that at Khartoum. Critics might be asked to

recollect the entirely different conditions under which the respective establishments are conducted.

The Khartoum Grand hotel can accommodate over one hundred guests, but it is seldom that the management is called upon to provide for such a considerable number. The general charges are somewhat higher than those in force in Egypt at hotels of a corresponding class ; all extras are charged for at proportionate rates. It is surprising how many " extras " present themselves when one's weekly bill is submitted.

The Gordon Hotel has undergone many early vicissitudes, and has proved the cause of failure of at least one proprietor. Under the present management a bolder bid for popularity has been made, and not without success. Structural improvements, increased interior comforts, and a necessary revision of the catering arrangements have served to materially strengthen the attractions of the hotel.

A third establishment—ranking more properly among " family pensions "—is the Royal, a small house capable of accommodating perhaps a dozen or so guests. The rooms, however, are small, and the situation rather less favourable than either that of the Grand, which faces the beautiful Nile, or of the Gordon, which pleasantly fronts a large open space or square of which one side is completely occupied by the handsome law-courts building.

A halt would appear to have been called in the construction of new residential buildings in Khartoum City, where the erection of anything beyond some small residences and a few native shops has not been undertaken of late. Yet it is no easy matter to find a furnished or an unfurnished house when required ; as a consequence, rents continue to rule high.

Land is now very much cheaper than was formerly the case. In 1901, before there had been any settlement of the land question, building ground could be purchased at prices ranging from 1d. to 2d. per square yard ; then came the land " boom," and the price rose steadily until the figure reached £E2 and £E3 per square yard. Afterwards—in 1907—followed the inevitable crash, from the effects of

which people in Egypt and the Sudan have not yet quite recovered.

The one-time desirable town sites and buildings at Khartoum, formerly the property of the now defunct Sudan Development and Exploration Company, Limited, have been acquired by the New Egyptian Company, Limited, with the idea that such property may again become valuable, especially when the Government's irrigation works at the Gezira and the White Nile Dam are proceeded with. The new owners believe, and probably with reason, that the sites will then, or a little later on, be easily disposed of at remunerative prices.

There are from 50 to 60 kilometres—say, 30 to 40 miles—of made streets in the city of Khartoum. Considerably fewer than one-half are macadamised. The quantities of loose sand in the unpaved thoroughfares render locomotion somewhat difficult at times, and during the prevalence of the strong northerly winds clouds of dust occasionally pervade the atmosphere. Some better kind of paving material is now being laid down, and this should, no doubt, tend to improve matters to some extent. But the sand which continually accumulates can never be completely got rid of.

Towards the end of October the climatic conditions of the Sudan usually undergo a very pronounced yet gradual change; these influences are felt uniformly throughout the country. The intense and trying heat of summer, during which a maximum daily temperature of over 112° F. may sometimes be registered for several days in succession together with night temperatures which are cool only by comparison, gives place to cooler nights though hot days still prevail. By the first days of November strong and persistent winds have set in, and these produce a fall in temperature to well under 80° , except in the direct rays of the sun, where the heat still holds sway.

In Khartoum the winds which blow from November onwards are regarded with feelings of mixed pleasure. While bringing certain relief to the sleeper, who may now wish to withdraw his bed from the roof of his dwelling-house, which during the stifling nights he has sought as his sleeping

place, to slumber in the more convenient and more private bedchamber, they are sometimes so cold, especially in the early morning, as to produce considerable discomfort. In February and March the strong and continuous winds sometimes raise clouds of fine penetrating dust, which finds its way through the closest-fitting windows and doors. Moreover, general chaos may ensue among detached or light articles which are reposing upon tables left unsecured by clips or weights, every time that a window or a door is opened.

Beyond collecting in the form of a thick veil or deposit upon the objects which it touches, the dust of Khartoum is not injurious, as are the sand and grit met with in other places such as Johannesburg and Kimberley in South Africa, in Coolgardie and Kalgoorlie in Western Australia, or, say, in the nitrate towns of Chile. In all of these occasionally windy towns, the flying particles of dust have a destructive effect on anything upon which they may fall, and prove far more difficult to remove than the lighter particles encountered in the Sudan, though, in May and June, the great dust storms or *haboubs* are very trying.

Unquestionably the greatest structural improvement which has yet been undertaken towards enhancing the appearance of Khartoum—particularly that portion of the town near the river and occupied by the European part of the population—is the embankment which runs for a considerable distance along the left shore of the Nile, forming an agreeable *corso* for carriages, bicycles, and motor cars. The avenue of closely planted trees, most of which have now attained a substantial height, affords a very agreeable shade; the several handsome public buildings and private or official residences, each surrounded by its own well-maintained garden, also serve to set off the attractions of the embankment with great effect.

The wide, well-paved roadway has lately been extended to the Moghren Ferry station, the line selected taking full advantage of existing trees and preserving intact the old Moghren Fort. The road has been kept back as far as possible from the river as considerable scour is to be met

with from the Moghren Quay wall, and which, indeed, is rapidly eroding the bank. Public seats have been provided, and it would be as well if this comparatively inexpensive accommodation were extended to some, or even to all, of the long and wide avenues which stretch across the city, to traverse which during the heat of the day becomes extremely burdensome and exhausting. Moreover, upon moonlight nights, when many would gladly stroll forth in search of fresher and cooler air than the interior of their houses can afford, these seats would be vastly appreciated by wandering pedestrians and residents of the neighbourhood.

The Sudan is essentially a country in which, owing to its geographical position and its trying climate during several months in the year, one might reasonably expect to find recognised a considerable number of public holidays, both official and native. As a matter of fact the number is small, the majority of the official and commercial classes comprehending that they have not been sent, or have not come voluntarily, to the country to play or to hold high revels.

There have been but ten recognised Government holidays throughout the year, independent of the Christian Sabbath Day. These have comprised one day in January (the 8th, hitherto held to celebrate the accession of the ex-Khedive Abbas, in 1892, a celebration now consigned to oblivion) ; one day in February (the 13th, the birthday of the Prophet Mohammed, a fast known as *Mulis-el-Hussein*) ; one day in April (the 28th, *Shem-el-Nessim*) ; one day in May (to celebrate the accession of His Majesty King George V. in 1910, as well as the 7th, the birthday of the deposed Khedive (1874) (also to be ignored for the future) ; one day in June (the 3rd), the birthday of King George V. (1865) ; four days in August or September (the Ramadan, or *Id-el-Sughaiya*) ; six days in October or November (from the 8th to the 12th inclusive), in connection with the Kurban or Bairam or *Id-el-Kebir* ; the Mohammedan New Year's Day ; and, finally, one day in December, Christmas Day. Two days replacing those devoted to the commemoration of the ex-Khedive are dedicated to the Sultan of Egypt.

The Mohammedans, who vastly outnumber the members of all other religious faiths in the Sudan, hold sacred thirteen days of the year, and upon these no business, as a rule, is conducted by them. These thirteen days are : (1) Leilet-Ashûra, or the anniversary of the death of Hussein ; (2) the Return of the Mahmal from Mecca and Medina ; (3) the festival of the Mulid-el-Nebi, or Birthday of the Prophet Mohammed ; (4) Mulid-el-Hussein, in connection with which twenty-three days are considered sacred, but upon one only—a Tuesday, towards the end of the month—is business actually suspended ; (5) Mulid-el-Sayida Zenab, who was the daughter of Ali and Fatima and a grand-daughter of Mohammed, and in connection with whose birth and death a fifteen days' celebration is held, one day alone, a Tuesday, being considered especially sacred ; (6) the Mulid-el-Imam-el-Shafi'i ; (7) Leilet-el-Miarag, or night of the ascension of Mohammed ; (8) Ramadan, when every true believer fasts daily during a whole month between dawn and sunset ; (9) Id-el-Sughaiya ; or Id-Ramadan ; (10) the Procession of the Holy Carpet, the Kiswa, or inner covering of the Kaaba shrine of Mecca ; (11) the Procession of the Mahmal from Cairo to Abbassia ; (12) the starting of the Mahmal on its way to Mecca ; and (13) Id-el-Kebir, or el-Dahia, upon which important day every Mohammedan family that can afford it kills a sheep as a sacrifice, commemorating the offering of Ismail (Isaac) by his father Ibrahim (Abraham).

Notwithstanding these many ceremonial days, which in point of frequency compare very favourably with the innumerable saints' days in the Roman Catholic calendar observed with so much fervour throughout Latin America and other Catholic countries, there is little actual dislocation of business experienced.

At Khartoum Dr. Andrew Balfour and his successors have waged strenuous warfare against mosquitoes and other biting and disease-carrying insects, with a success equal to that of General Gorgas at Panama, who by similar methods rendered it possible to construct the great Panama Canal. Khartoum was plagued by myriads of voracious mosquitoes, and seriously handicapped by severe types of

malarial fever, until Balfour came, organized his famous mosquito-destroying brigades, hunted out the insects' secret haunts, and destroyed their larvae and breeding-places. In spite of manifold difficulties he overcame these and other insect pests. Nevertheless constant vigilance and defensive and offensive warfare have been, and always will be necessary, for Khartoum is located in an exceptionally vulnerable position—at the junction of the Blue and White Niles, where innumerable steamers and native craft from infested districts constantly arriving, facilitate fresh invasions by mooring on the foreshores, which at certain seasons abound in excellent breeding-places. Moreover, the cultivated areas near the city are a source of danger and anxiety. Yet the inhabitants of Khartoum no longer find it necessary to employ mosquito nets, a sure sign of the efficacy of the anti-mosquito campaign. Midges, which at night flock to artificial light, are troublesome, especially in the houses on the river front. They do not bite, but constitute themselves a nuisance, and apparently defy all efforts to secure their destruction. At some seasons of the year "sand-flies" are numerous and very annoying, while sand-fly fever, though not common, has been known to occur.

There is no finer example of the possibilities of rendering the most deadly tropical regions healthy and fit for white men than the work of Dr. Balfour and his successors, both at the Wellcome Tropical Research Laboratories and in the Sanitary Service at Khartoum.

Notwithstanding the great difficulties, Khartoum as a place of residence has, as the result of Dr. Balfour's masterful efforts, established a reputation for healthfulness which is abundantly justified. The death-rate arising from disease is not only lower than that of any town in Africa, but compares in a striking manner with other tropical and sub-tropical towns of considerably larger size in other parts of the world.

CHAPTER XLVI

Kordofan Province—Physical features—Absence of rivers—Communications—Population—Abu Zabad—Bara—El Odaiya—El Obeid—Administration—Old town and new—Mahdi depredations—Water—Wells—Greek merchants—Gordon's prejudices—Lack of hospital accommodation—Kordofan's contribution to revenue—Hospitals at Nahud and El Dueim—The Hicks tragedy (1882) site—Lack of a memorial—Opportunity to erect one—Gum merchants—Their methods—Nahud—Native donkeys—National Bank of Egypt's gum transactions—Headquarters of the trade.

UNTIL the commencement of the year 1914 Kordofan Province formed the largest of the political departments in the Sudan ; from January 1 of that year no fewer than 31,560 square miles of its territory were detached and incorporated into the newly created province of the Nuba Mountains. Kordofan, however, still ranks as one of the widest of the administrative areas, claiming an area of 119,000 square miles—the Bahr-el-Ghazal and Dongola Provinces alone exceeding it in size ; while it possesses ten Mamurias, namely, Bara, Um Dam, Sadesi, Rahad, Abu Zabad, El Odaiya, El Obeid, Muglad, Nahud, and Um Ruaba.

From a scenic point of view the province is singularly unattractive, mainly on account of the complete absence of rivers or of water except that which is yielded by wells. The vast gum-forests, which still abound notwithstanding the wanton destruction which has occurred to these valuable possessions, are not at all charming to the eye, while the lack of flora and some wide, limitless expanses of sandy, waterless desert lend a rather depressing appearance to the greater part of the country. But in compensation the province of Kordofan offers certain advantages, principally

in regard to a rich soil upon which grain thrives remarkably well under normal rainfall conditions, the enormous quantity of gum-trees, to which reference has already been made, and generally satisfactory conditions under which cattle-rearing can be carried on.

Beyond the railway communication with Khartoum and the river communication *via* Kosti (in the adjoining White Nile Province), Kordofan carries on all internal intercourse by means of camels or horses, hardly any wheel traffic being met with.

The population, which now amounts to about 336,600, consists very largely of nomad Arabs, many of whom are very wealthy cattle-owners—more particularly the Baggara tribes—while the Kababish and Kawahla tribes possess enormous herds of camels.

Abu Zabad, situated in the western portion of the province, is one of several swamps, El Sinut, El Sincita, Toto, Kutna, and Burdia being others. During the rains the country round about is rendered impassable, but in the dry season these districts yield a good supply of water which is much valued by the camel-owners frequenting the district with their animals; they dig deep wells which they surround with walls of wood and earth to keep them free from mud and grass.

Bara is but a small place, although a Mamuria is located there. There are, however, some remarkably productive gardens cultivated in the surrounding country, and a small local market is usually well attended. The many wells which have also been sunk round about here—at a depth of about 20 feet—are marked by means of *shaduufs*, while irrigation basins also exist and are found valuable adjuncts by the large agricultural population which lives in the district. Here, as indeed throughout the entire province of Kordofan, are still to be seen evidences of the widespread destruction occasioned by that pestilential scourge the Khalifa Abdullah. When the province was reoccupied by the Anglo-Egyptian troops in 1899 hardly a village or hamlet remained, while the larger towns, such as El Obeid, Nahud, and El Odaiya, had been left practically in ruins.

El Odaiya—sometimes written El Eddaiya—is another well-watered portion of the province, where many *shadufs* may be found at work all day and the greater part of the night. Just south of the village one may expect to meet with giraffes, these animals indeed being very numerous throughout the southern and south-western districts of Kordofan.

The most numerously represented tribe—the Homr—appears to be a peaceable and industrious people and well off from a worldly point of view, but warlike enough when thoroughly aroused.

Of the old town of El Obeid, which was besieged and subsequently occupied by the Dervishes, no traces, beyond the fort, remain. Modern El Obeid consists of a number of neatly constructed and thatched *tukls*, several well-built single-story mud-brick houses and shops, and a number of commodious official residences constructed of burnt brick and stone.

The lack of vegetation of any kind is one of the drawbacks suffered by the inhabitants of El Obeid, consequent upon the sandy nature of the soil and the scarcity of water. Although there are probably nearly two hundred wells in or near the town, the amount of water available is wholly insufficient, none apparently being available for plantations or for street-cleaning.

There are between 180 and 190 wells in the immediate district of El Obeid, 20 being in the cantonment, 20 in the small khor, 112 in the main khor, and the remainder distributed at different points of the main khor districts. Of the total number here mentioned, 40 produce undrinkable water. As a matter of fact, only 59 wells produce sweet water, the remainder yielding either moderately sweet or moderately bitter.

Between El Obeid and Kosti, a waterless stretch, several wells have been sunk for the use of the railway. At El Obeid station there is one well 118 feet deep, giving between 5000 and 6000 gallons of water daily. Water was originally found in this well at a depth of 105 feet.

Hitherto strangers coming into El Obeid have been perforce billeted upon one or another of the officials, whose

house accommodation and resources, seldom very elastic, have thus been severely and quite unfairly taxed.

The Greeks, Italians, and Syrians are active and prosperous in business in El Obeid, as in most of the important Sudan towns, and they secure most of the trade. All this profitable business could be done by British merchants if they would be equally enterprising. How different the position and treatment of foreigners to-day from that experienced in the times of the Mahdi, when they were brutally beaten and robbed by that religious fanatic mainly because they happened to be Christians.

The province of Kordofan will always be remembered as the scene of the destruction of General Hicks's ill-fated army. Led astray by treacherous guides into the most desolate, waterless desert in the province and then deserted, the unfortunate army became completely demoralised. After wandering for three days and nights without water, they had come suddenly upon a force of Dervishes near Kasghil. Many hundreds had already perished of thirst, and the remainder were too enfeebled effectively to resist. Nevertheless the brave Hicks led a brilliant charge, both he and his staff dying like heroes. That was in November 1883.

It was not until after several years had passed that any Englishman troubled to seek the site of this awful disaster, which at one time sent a thrill of pity and horror through the length and breadth of England. In the winter of 1905, Sir F. Reginald Wingate in the course of an official tour through the country visited the battlefield, and he has provided us with a very full and sympathetic description of his impressions.

It seems remarkable that although almost forty years have passed since the lamentable destruction of the Hicks Expeditionary Force upon the desert of Shakan, no attempt should have been made to erect a memorial of any kind to the brave victims of Egypt's hideous blunder. While many of Hicks's 10,000 exhausted men undoubtedly perished of thirst, large numbers were ruthlessly slaughtered by the Dervishes.

Surely no better or more practical memorial could be erected than a well of drinking-water for the use of man and beast? In this horrible desert, into the mazes of which the followers of the brave British officer were deliberately betrayed, not a drop of water was or is to be found. It would cost but little more than £300 or £400 to sink a sufficiently deep and never-failing well; this, from both a strategic and humane point of view, would form a lasting and befitting monument to the memory of those who perished on that fatal November 5, 1883.

Before the Mahdi played havoc with the resources of Kordofan, the annual supply of gum-arabic amounted to between 20,000 and 25,000 bags, each bag weighing from 400 to 600 lb.; there was usually a stock held in London equal to about one year's receipts. So long as the Mahdists held Kordofan in their grip the supply entirely ceased, and the price advanced in London from the ordinary figures of 4d. to 5d. per lb., to between 1s. 6d. and 2s. per lb., according to the quality.

The Sudan gum merchants have still much to learn in regard to conducting their business in the most profitable manner. Their reputation among European buyers for probity is not of the highest. There is no possibility of the market at home ever being "cornered," as some among the more enterprising but wholly unskilful manipulators have attempted. If the price is raised too high the European market simply turns aside from the Sudan to Senegal and buys its gum there. It is even possible that some clever chemist may discover a process of manufacturing a substitute, as was done in the case of indigo dye in 1895, whereby the export from India of the natural compound has fallen off from an annual yield of £3,570,000 to about £250,000 (1910), while, of the whole world's consumption, 85 per cent is now artificial indigo. Let the Sudanese merchants accept warning lest the same fate overtake their present profitable industry.

The Sudan gum market, let it be remembered, was entirely closed at the time of the Dervish rule, and the world apparently went along very well without it. What

is there to prevent similar independence being manifested if the merchants should prove themselves unworthy of European patronage?

Nahud is almost a new town, containing about 7500 inhabitants of a very mixed character—Greeks, Syrians, Arabs, and pure negroes. Situated at a distance of 130 miles from El Obeid, the place has gradually expanded until it has now become a very important trading centre. In fact, the whole of the commerce from Darfur passes through Nahud, while a well-attended cotton and cattle market is periodically held there. But little trade is carried on in gum, since the town is too far away from the nearest transport station (El Obeid) to render it worth while to trade in the commodity. Other articles dealt in, however, comprise india-rubber in small quantities only, ivory, and feathers; but the chief industry is cattle-rearing, the animals brought to market being rather small and of the hump variety. Camels, horses, donkeys, sheep, and goats are likewise bought and sold in considerable quantities, the Baggara tribes owning immense herds and flocks of these animals.

Among the horses offered for sale are sometimes found some wretched-looking specimens, although Abyssinian ponies and Dongolawi horses are also to be obtained at very moderate prices. The first named are extremely handsome little creatures, fast, and gifted with great powers of endurance; if carefully trained they will travel 60 miles readily without food or water. In pre-war times they seldom realised a higher price than £E3 or £E5; upon occasions, however, an eager purchaser has bid as much as £E16 or even £E18 for a really fine specimen. Even the native donkeys are "stayers," trotting for 50 or 60 miles without evincing any bad effects. The journey by road between Abu Zabbat and Nahud, a distance of about 61 miles, is ordinarily performed by these wiry and pretty little beasts—which nevertheless sometimes prove extremely vicious—in a single day.

Um Dam is a small village, and would rank as unimportant but for the fact that it forms one of several centres of the

gum industry. Here the substance is collected and taken thence by camel transport to Khartoum, or to the river at El Dueim, in the White Nile Province, and there put into special boats.

During the busy gum season the National Bank of Egypt maintains a branch office at El Obeid ; having a monopoly of the business, which amounts to a considerable annual total, the bank derives a handsome profit from its transactions. The present structure occupied by the bank may be eventually changed, but until it is absolutely certain that El Obeid will become an accepted and permanent centre of the gum trade it is deemed undesirable to erect an expensive bank building. Opinion is still divided upon the question of the main centre and headquarters of the trade ; it is quite possible that this may be removed from its present situation at El Obeid to a place farther southward simultaneously with the prolongation of the railway. There is, however, an increasing tendency for gum to be exported abroad direct from some point on the river near to the place of production, and this fact accounts for the National Bank of Egypt having operated a branch at El Obeid since 1912.

CHAPTER XLVII

Mongalla Province—Area—Population—New administrative divisions—Progress—The Lado Enclave—Agreement with Belgium—Province tribes—The Beirs and their settlement—Lack of education—The Governor, Major C H Stigand, killed in action—Modern Mongalla town—Official and native residences—Climate—Scenic attractions—Sleeping sickness—Agriculture—Game—Elephant trophies—Military establishment—Police—Bor—Inspector's residence—Climate—Insect pests.

The Nuba Mountains Province—New administrative area—Population—Cattle owners—Wealth of natives—General prosperity—Talodi—Mud dwellings and offices—Towns and villages.

THE PROVINCE OF MONGALLA

MONGALLA Province has an area of 63,800 square miles, and a population estimated—no doubt more or less correctly—at 207,402; that is to say, over 90,000 more than in the official Sudan Almanac for 1914, which gave the province's population as merely 115,000. From a scenic point of view the province vies with any of the departments, some of the most beautiful country in Central Africa being comprised within its wide and diversified borders. The administration area is divided into fifteen districts, over which nine inspectors have been appointed, namely, at Bor, Mongalla (2), Rejaf, Amadi, Torit (2), Duk Fuinil, and Opari.

This Yei district suffers very considerably from the ravages of the disease known as sleeping sickness, several hundreds of cases having occurred there. The scourge has naturally affected trade and commerce in this portion of the province and occasioned considerable anxiety to the Administration.

Until 1906 the districts of Bor and Mongalla had been a portion of the Upper Nile Province, but in that year they

were formed into a separate administrative area with the 7° 30' N. parallel as the northern limit, the other boundaries remaining unaltered.

Mongalla Province for many years, in fact until 1908, remained one of the most backward, as it was, and is, the most remote province of the Sudan. Hardly any revenue was derived from it, while the cost of administration was somewhat high. To-day the revenue amounts to about the same as the expenditure; the people are prosperous, labour is abundant, and trade is increasing. The province until 1914 fortunately escaped any visitation of the cattle-plague, while smallpox, which at one time was a very common complaint among the Bari tribes, has been practically eradicated. So far, also, the efforts undertaken to prevent the dreaded sleeping sickness from spreading beyond the Yei River district have proved successful.

During the year 1914, however, rinderpest was experienced throughout the province, not a single district escaping. The disease was apparently spread by wild game, it having been observed that large quantities of reed-buck and other kinds of buck had died from a disorder which bore all the appearance of rinderpest. Even after it was believed that the outbreak had been overcome, it showed itself with renewed virulence, causing wholesale mortality among the cattle belonging to the Kuku tribe inhabiting the Kajo-Kaji district. Unabated efforts to suppress the disease have since met with success, and the methods by which the disease is now countered give reason to believe that its ravages are at an end.

In the administration of Mongalla Province is now included the Lado Enclave, an immense area extending to 15,000 square miles with a population estimated at 250,000, taken over from Belgium—in accordance with the agreement made with the late King Leopold II. of Belgium. On January 1, 1914, the southern Lado Enclave was exchanged with the Uganda Government for the Gondokoro and Minnute districts situated upon the southern frontier, which now proceeds along the 4° N. parallel up to the Sandeman Gulf of Lake Rudolf. The town of Gondokoro,

which was commenced by Sir Samuel Baker—and named, out of compliment to the then Khedive of Egypt, “Ismailia”—now no longer exists as a station. The troops formerly stationed there have been withdrawn, and the town—which is situated about 26 miles from that of Mongalla—is practically a dead place.

The different tribes which inhabit the province are numerous; on the whole they are described as a peaceful and even an amiable people, apparently well content to enjoy full liberty and good government under the present Administration. The tribes consist of Baris, Dinkas, Berris, Niambaras, Fajeulas, Kakuas, Kalikus, Mondus, Makarakas, Mandoris, Kukus, Latsukas, Lafites, Lokoias, Morus, Dodingas, Dabosas, and Oboyas, or some eighteen tribes in all. The most numerous among these are the Dinkas, the Baris, and the Kakuas. There remain still four of these tribes who have yet to submit to the Administration—namely, the Dodingas, the Dabosas, the Lafites, and the Oboyas. The Berris of Jebel Lafone, who caused no small amount of trouble in the early part of 1912, have since settled down peacefully, their chief—one Kiddi—having visited the British Governor in order to make his formal submission.

On the other hand, the Lokoias have proved very troublesome, refusing to forward mails and maliciously destroying the telegraph lines and burning the poles. Yet, again, during the year 1914 there arose native trouble, the Nuers of the Upper Nile Province—led by a certain El Karkira—commencing a series of raids on the Duk Fadiat and Bor Dinkas, capturing over 3000 head of their cattle and attacking the Duk Fadiat post with some violence. These unruly natives were only controlled after the despatch of a small contingent of the Gordon Highlanders, who, in the month of June 1914, took the matter in hand. The Dinkas are now permitted by the authorities to carry a few arms in order the better to protect themselves against further raids made by the Nuers. Such events as these show how continually the Government must be on its guard, and how tactfully it must deal with the people who, after all, are

very much like grown-up naughty children. It is questionable whether any but British officials—discreet, prompt, and always humane in their actions—could control the wild tribes and bring them gradually “into line.”

It is but comparatively recently that the Beir tribe have been brought into subjection. For long they proved extremely troublesome and truculent notwithstanding the friendly overtures and the proved good intentions of the Government. The tribe's principal offence consisted in making continual raids upon the neighbouring Dinka tribes. Finally, in 1911 an armed force, consisting of three columns, was despatched against them, and after some months' fighting, which entailed the loss of forty-one killed and wounded on the Government side, and a great many more upon that of the enemy, the latter submitted and gradually came in peacefully. They have since remained among the more loyal and better-behaved of the various tribes composing the Mongalla population. The Beirs now pay the trivial annual amount of tribute demanded of them without either opposition or complaint. A small garrison has nevertheless been permanently established at Fort Bruce, and a second station with military attachment has also been established.

The Beirs, who total probably some 15,000, inhabit a wild and but partially explored part of the country, which, however, is known to contain many thousand head of cattle. This fact was supposed to prove that no pernicious or deadly parasites existed there.

Of native education the province can boast probably little or none. There exists no Government school in Mongalla; the only educational establishments of this kind are those of the Church Missionary Society, who maintain a small station at Malek, and the school of the Detachment of the 12th Sudanese at Mongalla. Undoubtedly a boys' industrial school is greatly needed, and maybe, later on, the Government will see its way to provide some establishment of this class. The numerous small boys who now run about quite wild and completely naked could doubtless be much improved by some moral as well as mental direction.

Major^{*} C. H. Stigand, the Governor of Mongalla, was recently killed in battle. He was one of the most efficient officers in the Sudan Service, and author of many valuable books on African subjects. The leading authorities regard his volume, *Administration in Tropical Africa*, as the best text-book on the administration and handling of natives. It should be in the hands of every civil and military official dealing with primitive races.

The modern town of Mongalla, the capital of Mongalla Province, stands upon the west side of the Nile, about 1200 miles distant from Khartoum by river. It ranks with that of Merowé (Dongola Province) as among the best-arranged and most sanitary provincial towns in the Sudan. It was mainly laid out by a former Governor (Colonel R. C. R. Owen), and developed by Major Stigand. The Belgians, who formerly held this territory, left nothing but wretched hovels and litter when they yielded up possession.

The main idea had been to lay out Mongalla town after the pattern of an Indian cantonment; consequently the streets are perfectly straight and rectangular, the native quarter being segregated from the official and European section, while several lengthy avenues of bright flowering trees, which some day may become tall and shady, afford an attractive appearance to the town, especially from a distance. An abundance of tap water, in addition to the River Nile, enables the inhabitants to practise cleanliness both inside and outside their habitations.

These latter are built of neatly thatched grass and palm-leaves; they are dome-shaped, the married men's quarters, for greater privacy, being surrounded by high palisades made of the same material or of tall rushes gathered from the river; the single men's huts are not quite so zealously screened from public view.

The official residential quarters are constructed of reinforced concrete blocks, or of bricks, with strong corrugated iron roofs, wood-lined. The general effect is exceedingly good, more especially since the tiles of the house-roofs, all of which are made locally, are painted a pleasing dark red colour. Well-tended gardens, filled with variegated coloured

flowers and many brilliantly green trees and shrubs, lend a tropical aspect to the whole.

The general climatic conditions of Mongalla town are now considered as agreeable as any that can be found in the Southern Sudan. Sedulous care has been taken to protect the place as fully as is possible from the visitations of mosquitoes and flies, stagnant water-pools and depositaries being filled in, while all the newest buildings are entirely wire-screened.

The effects secured are but partially satisfactory, since the battle—waged by day as strenuously as at night—against the myriads of flying and crawling stinging creatures has yet to be won.

At the time of the season's rains, which prevail between the months of May and October, the whole district assumes a vivid green appearance; the surrounding forests are filled with innumerable flowers of every conceivable colour and some of powerful perfume, while the roadways and footpaths resemble verdant lawns.

At most periods an abundance of game exists; great herds of zebra, giraffe—animals with which hardly any one ever interferes,—elephant, buffalo, lion, leopard, and enormous numbers of buck of many different kinds may be met with in practically undiminished quantities.

Near the river, however, game is becoming harder to approach, and sportsmen as a consequence are obliged to travel farther inland than was formerly found to be necessary.

The Nile here teems with fish, some of which are quite palatable, and with swarms of hippopotami and crocodiles. The province of Mongalla, in fact, may be regarded as embracing some of the best game country in the Sudan.

The western districts of this province are temporarily closed to trade, sport, and transport owing to the prevalence of sleeping sickness. Energetic steps have been, and are being, taken by the authorities to stamp out this pestilence, but it is practically impossible to completely control the coming and going of thousands of natives over so wide an area of territory, and any one among these casual, careless wanderers may serve to spread the dreaded disease. Such transportation and trading as are carried on are

entirely in the hands of the Government, so that an effective check can be maintained upon the passing to and fro of either possibly infected cattle or human beings.

Of manufactures the province of Mongalla at present possesses none ; on the other hand, its agricultural production is far from insignificant. This includes dura, rubber, coffee, and a little Nyassaland cotton as well as sugar-cane. Coffee of good quality would probably grow in the Moro, Yei, and Loka districts, the local conditions strongly resembling those in Uganda where the coffee industry is very prosperous.

A considerable amount of ivory, usually of superior quality, is received from the province of Mongalla, the greater part of which is purchased locally for transportation to England, the United States, and, until recent times, Germany.

As might have been anticipated, as one of the many adverse consequences of the European War upon the economic interests of the Sudan, there was a great falling off in the amount of ivory tusks exported, the usual big game shoots having shrunk to an almost negligible number.

Some very remarkable elephant tusks have been secured in the Mongalla Province. Among other notable "bags" was that obtained by Colonel R. C. R. Owen, who shot an elephant at Loka which yielded a pair of tusks weighing 136 lb. and 132 lb., and measuring 10 feet 3 inches and 9 feet 11 inches respectively. The age of the animal was estimated at between 150 and 200 years. When offered for sale the tusks realised the sum of £225 net, thus making almost, but not quite, a record price.

The military establishment at Mongalla consists of two companies 12th Sudanese Garrison Artillery. The equipment includes three guns—9-pounder and 75-cm. Q.F. In addition there are two companies of the Equatorial Battalion stationed at Loka and Kajo-Kaji, each numbering 120 men, or a total strength of 240 men. The police force numbers 360, the men being distributed at various district headquarters and at Mongalla town, where also is stationed an efficient police band. The Government maintains two small gunboats—the *Sheikh* and the *Tamai*.

Bor—otherwise Moding,—distant 340 miles from Lake No, is a scattered Dinka village, and probably one of the most disagreeable residential stations for a European in the Sudan—certainly in the province of Mongalla. It has no special history, a circumstance perhaps in its favour; it has no trade; it has no future; it is possessed of the most trying climate and afflicted with the most numerous and persistent insect pests to be found in Central Africa. Nevertheless, being the headquarters of a district and an important wooding station, a European Inspector must perforce reside there.

Bor is really a name applied to the long and straggling village, or conglomeration of villages, which stretch for many miles between the river—about 80 to 90 yards wide at this part—and the forest. The place which is thus named with geographical inexactness consists of a few brick-built Government offices, a corrugated-iron and wooden telegraph building, a number of goods sheds for the steamers which call there, and various grass-woven *tukls* of the bee-hive pattern inhabited by the natives.

The house occupied by the Inspector, an unattractive small, square, box-like structure built uncompromisingly of burnt brick without any redeeming architectural feature, is probably one of the least desirable types of official residences. Considering the several attendant disadvantages which must be endured by those residing at Bor, one would have expected to find the permanent European officer provided with a house rendered as comfortable and as convenient as possible. But for the realisation of such a desideratum the Inspector at Bor—like his superior the Governor at Mongalla—must await the flushing of the treasury at Khartoum.

A rubber farm, which had been started by the Woods and Forests Department, has now been abandoned, although the planted area is being kept clear of grass by a local chieftain, in return for the payment of some trifling remuneration. One other rubber plantation at Kagulu is said to be doing fairly well.

The soil upon which Bor is built is that known as

cotton soil, a term which may be accepted as defining ground favourable for the growing of the plant. But none is, or ever has been, grown at Bor. During the summer, when the fierce, brazen sun beats down with pitiless strength and ever-increasing ferocity upon the parched land, this soil becomes intensely brittle and disintegrates rapidly; huge cracks and crevices appear in the ground, and even the thick-grown grasses assume the appearance of tinder. In the time of the rains, that is to say, between the months of May and September (sometimes earlier and sometimes later), the whole of the surrounding district becomes a huge morass, the water standing in stagnant pools for months until the strong sun once more gains full sway. During these wet months the district is infested by myriads and myriads of mosquitoes, many of the most deadly type and all of the fiercely biting species. Human life under such conditions, even for the hardened and indigenous residents, becomes unendurable, and while the one European official flies for protection either to Mongalla or to Europe, the natives retreat some miles inland, where the mosquito plague is found to be somewhat less severe.

Rejaf is a very interesting native town, not only on account of being now the terminus for the White Nile steamers, but because of its historical associations. Sir Samuel Baker had something to say about the town and district and the various tribes, while in February of 1897 a fierce battle was fought there between the Belgian forces under Baron Dhanis and the Dervishes. Of the latter the number were estimated at 2000, but they were attacked and defeated with great loss. The white men engaged, however, did not come off scathless, one officer being killed and several wounded.

The Rejaf mountain—a pyramidal solitary peak which can be seen for many miles distant—is a favourite resort for travellers who arrive by steamer, and may be easily ascended. From its summit a magnificent panoramic view of the surrounding country can be obtained, including a maze of rocks and channels, reefs and rapids which the river forms at this spot. The most dangerous shallows

commence here, navigation being conducted with the greatest difficulty during the dry season.

Tombé is now an important missionary station, and good work is being carried on here by the Church Missionary Society.

THE NUBA MOUNTAINS PROVINCE

The Nuba Mountains Province as a separate administrative area came into official existence as recently as the year 1914, with Talodi as its capital. The total area is 31,560 square miles, and the population is estimated at 268,000; as no reliable statistics are available, however, at present even the officials are ignorant regarding the number of people which the new province—formerly part of Kordofan—contains. What may be said, however, with more assurance is that the population continues to increase very satisfactorily, there being no emigration. On the other hand, several Kenana and other Arabs who had previously settled in the Shilluk districts of the Upper Nile Province have now come into that of the Nuba Mountains, and they will probably settle there permanently.

From a scenic point of view the Nuba Mountains Province is fairly attractive—very attractive indeed if it be compared with the rest of the surrounding country; when Kordofan was deprived of the Nuba hills it lost the more picturesque portion of its territory. Upon all of these irregular hills are found thorny bushes and rugged rocks; many of them are cultivated in terraces downwards to between 300 and 400 feet.

As may be gathered from their name—Nuba—these tribes are perfectly black, and are very far from comely in appearance. They cultivate dukhn, a coarse kind of grain, while they grow a small species of melon as food for their cattle during the dry season. Other of their possessions—and some of these tribes are quite well off—include donkeys, goats, and small herds of sheep. Compared with the wretched condition in which they were left by the Khalifa, the Nubas' lot to-day would appear to be a particularly

pleasant one. Their herds and flocks are increasing apace ; they are actually saving money and purchasing jewellery and numerous luxuries in the form of wearing apparel, coffee, sugar, tea, and cooking utensils. Unfortunately the people have evinced no marked tendency to become educated, and of schools in the province there are none.

On the other hand, having learned the value of money, the Nubas and the half-bred Arabs living round about the base of the hills are always ready to work, and, as a consequence, labour is both cheap and abundant although not particularly efficient. The natives are good road-makers and fairly dependable as transport riders.

As yet Talodi is little better than a *tukl* village, although one day it may become a well-built and thriving town—as behoves the capital of a province. The Provincial Government has been allotted no funds for permanent buildings, nor is it likely, in the face of present conditions, to receive a very liberal allotment for some time to come. Consequently, with the exception of the already existing erections—and most of these are in a state of greater or less dilapidation—the official houses and offices are built of mud ; they are nevertheless neat in appearance and quite comfortable, and thoroughly well answer the purpose to which they are put.

Other towns—where *mamurias* are established—are Dilling, Kadugli, Sungikai, Rashad, Tagalle, and Etiri. These places call for no fuller description, since they present no particular features of interest. The inhabitants appear to be as content and as prosperous as the rest of the people of the province, and that is the main consideration.

The province continues to pay its way, and its prospects of ranking among the more successful of the departments seem to be particularly bright. Much, of course, depends upon the attitude and the industry of the people themselves—especially of the Nubas—who, as already indicated, are showing signs of becoming more and more amenable to discipline.

CHAPTER XLVIII

Red Sea Province—Area—Population—Condition of the people—Revenues—“Tax” or “rent”—Land values—Suakin—Picturesque features—The gateway of the Sudan—Railway communications—Under Mahdi rule—“Kitchener’s Gate”—European residence—Native quarter—Squalid conditions—Education—Government school—Efficiency of pupils—A model establishment—Rivalry of Port Sudan—Old Suakin—The tribes—The Bishareen—The Hadendowas—Tokar—Sudan—Climatic conditions—Historical associations—Town improvements—Erkowit—Government residences.

RANKING among the smaller of the Sudan*departments—the superficial area not exceeding 20,000 square miles—the Red Sea Province nevertheless stands next to that of Khartoum in commercial importance; for here are found the two principal—in fact the only two—ports of the country—Suakin and Port Sudan. Moreover, the Red Sea Province has become the most prosperous of the cotton-producing departments of the Sudan, being favoured with almost ideal climatic conditions for this class of agriculture. There can be no doubt that the population of the province is increasing—the estimate being based upon the large number of children which are everywhere met with. The official estimate is 35,000.

The material condition of the people—especially the large number of nomads—seems on the whole to be prosperous. A good rainy season means to them all the difference between great prosperity and comparative poverty; and the Red Sea Province ranks among the more rainy departments of the Northern Sudan. Nevertheless, long and serious droughts are by no means unknown; the northern portions particularly have suffered from such visitations.

A tolerably accurate estimate of the general welfare of the population may be ascertained from the manner in which the tribute—amounting to a 10 per cent increase above that of previous years—has been collected; that is to say, without any difficulty whatever. Collection of other taxes, such as “ushur”—payable upon flood crops of dura and dukhn at the rate of 10 piastres per feddân—and the herd tax, now offer no greater difficulty.

The Provincial Government revenues are derived from many different sources; and while the actual amount of the taxes imposed is moderate—in some cases extremely so—they seem to cover a fairly wide and comprehensive area. Thus in the Tokar district, which may be regarded perhaps as one of the most productive of all channels of income, the following taxes are in force: upon wood, sales of petition forms, native liquors, and licences issued to auctioneers.

For the individual possessed of love of the picturesque, the town of Suakin must hold especial powers of attraction. Probably few parts of the East display more thoroughly quaint or heterogeneous collections of human dwellings than can here be found. Within my not inconsiderable experience of inhabited places of the earth I can recall no town which offers the same striking pictures of Eastern and semi-savage desert life side by side, the marine and mountain setting of the district adding immensely to the effect.

At first sight of Suakin the new arrival is apt to believe that the town has suffered, and suffered severely, from a recent earthquake. Fully one-half of the buildings are in ruins, while the large number of inhabitants who preferably dwell in tent-like hovels suggest the idea that they have been temporarily driven from the occupation of more substantial domiciles. The principal reason for the widespread dilapidation, which one cannot but remark, is the decline of Suakin from its once unique position as the sole port of any consequence situated on the Red Sea littoral. This is a distinction which can no longer be claimed, for the valuable Sudan shipping must be shared with a new and formidable rival—Port Sudan. With the decline in mari-

time supremacy have come about a diminution in commerce and trade, in the number of inhabitants, and the gradual withdrawal of foreign banking and financial interests, a transformation which has occasioned widespread collapse in the general prosperity of the town and district.

If, however, the fall from early prosperity has been severe, it has failed to attain the dimensions which were believed to be inevitable when Suakin was officially abandoned in favour of Port Sudan. As a fact, the expected wholesale exodus from Suakin has failed in realisation, and the native population, although diminished both in numbers and in influence, remains still very considerable. If the majority of the dwelling-houses have fallen into a sad state of dilapidation, it is because the owners can no longer afford to expend sums of money upon effecting the necessary repairs, and because tenants are only now obtainable at greatly reduced rentals. If the many retail stores and wholesale warehouses lack that air of activity which they enjoyed anterior to the establishment of the rival port, at least they are enabled profitably to carry on some kind of trade, and but few among the native proprietors would seem to suffer from the effects of depression. In all probability Suakin will always contrive to exist, for there seems to prevail a rooted objection among the inhabitants to forsake it, while it is still regarded as the principal commercial depot of the Red Sea Province.

It would be indeed lamentable were a place as interesting as Suakin, from both an historical and picturesque point of view, permitted to fade out of existence entirely. It seems remarkable also that a town which offers so many unique and attractive features, such a feast of Oriental colour and ruined magnificence, should be carelessly passed by the many hundreds of tourists and other visitors who enter the Sudan by the adjoining port, situated but 50 miles away, and who know nothing of, and perhaps care nothing for, the scarce-hidden charms so near at hand.

A railway connects Suakin with Port Sudan, while the town may be reached also by an irregular steamer service, the distance by sea being but 33 miles. Considering the

once prominent place which it held in the political and military history of the Sudan, Suakin should attract the first instead of the last consideration of those who enter the country with the idea of seeing and knowing something of its attractions.

When the projected railway between Suakin and Tokar is constructed—and this is promised within the next year or so—the commerce of the town will receive a further impetus. The long trains of camels, loaded with produce and goods from abroad, destined for Kassala, will gradually disappear, it is true, and the many wild-looking but picturesque Hadendowas who tend the caravans will vanish also into their native mountain recesses. The iron horse will once more supersede the ship of the desert, with the satisfactory result that freight charges will fall to a tithe of their present rates, while thousands of tons of merchandise—instead of hundreds as at present—will pass backwards and forwards, to the advantage of Suakin and Suakin merchants, many of whom own both house property and cotton-fields at Tokar, situated not far distant. Thus Suakin's future is not altogether without an encouraging aspect, and it may even regard the simultaneous advancement of its rival, Port Sudan, with equanimity.

Suakin suffered severely commercially during the fourteen dark years of Mahdism, under whose blighting rule the important trading route between Suakin and Berber was completely closed to caravans. Even before the battle of Atbara, which finally released the province of Berber from the nightmare system which had so long afflicted it, both imports and exports showed signs of increase, for merchant steamers soon recommenced to plough their way to and from the busy little port. Rivalled to-day by a more modern port, Suakin nevertheless continues to hold its own, especially with native traders. .

Between 1883 and 1898 the Suakin-Berber commercial route had remained closed. The first individual to pass through after the Dervish defeat and without incurring any danger was Captain Sparkes, of the 4th Egyptian Battalion: he made the journey in the month of October 1898. Some

time before that, however, certain Greek and Arab merchants had petitioned the Government to be permitted to reopen the caravan road and to send their camels through. While they offered to do this entirely at their own risk and expense, it was not until the end of the year 1898 that the much-needed official permission was granted. Then lengthy caravans bearing every description of local produce and quantities of European goods were despatched almost daily into the long-famished interior, much to the relief of the local inhabitants and to the considerable profit of the merchants residing at the port.

The town of Suakin has altered hardly at all in appearance since those days, although several handsome modern buildings have been erected on the water-front. Kitchener's Gate, a splendid piece of semi-Moorish architecture, and the long solid wall built of stone (or of coral rock) which Kitchener had had constructed to keep out the Dervishes under Osman Digna, still remain almost intact. The breach in that wall which the wild followers of the Khalifa could not succeed in effecting after months of tireless siege, a tidal wave achieved in the course of a single night. But the damage then occasioned was not found to be dangerous to the safety of the inhabitants, and not one among them lost his life as a consequence.

When the Agreement of January 1889 was signed between the British Government and that of the former Khedive of Egypt relative to the joint administration of the Sudan, the town of Suakin was excepted from the arrangement ; but this was found subsequently to occasion so much practical inconvenience that in the following July a new Agreement was entered into, by the terms of which the status of Suakin was declared to be in all respects similar to that of the rest of the Sudan.

There exists but a single public school in Suakin ; this, however, ranks among the best establishments of the kind to be found in the Sudan. The institution receives and educates the sons of well-to-do and also quite humble inhabitants, some among the pupils travelling daily, or less often, long distances from outlying places situated in the hills

and desert. The nationalities represented among the pupils are as various as are their characters, but on the whole they appear a thoroughly happy and well-behaved collection of youngsters, with an intense admiration for English football, a game which they play, and play well, every afternoon of the week.

The school adopts a curriculum covering both preparatory and primary education, the classes being four in number, according to the first, second, third, and fourth years of attendance. The whole course covers six years, at the expiration of which the pupils are drafted into the army or, if they so desire, are provided with some other post in the subordinate ranks of Government employees. The sons of sheikhs are trained to succeed their fathers who hold that position.

The head master of the Suakin school, a thoroughly capable Egyptian, and his several assistants, are graduates of the Gordon College at Khartoum. To their care and competency is due the excellent progress shown by the greater part of the pupils, all of whom, including the youngest still in the preparatory classes, are taught the English language. The ready facility with which many of them grasp both the significance and the correct pronunciation of words sufficiently difficult to perplex some English boys of more advanced age, is remarkable. Severe tests in geographical knowledge applied to others of quite tender years proved equally gratifying; complicated mathematical problems are tackled with the same readiness and success.

Physical drill forms a consistent and important part of the Suakin boys' school training. Twice daily the pupils—in two sections—go through one hour's callisthenics, the beneficial effects of which are clearly visible in the glowing healthfulness and the upright, lithesome carriage displayed by the greater number of the boys. Some 20 per cent of the pupils receive their education entirely free, the remainder paying according to a tariff of graduated fees, which in no case are found to be other than moderate.

Owing to the few resident Europeans—hardly exceeding half-a-dozen—there exists, as already mentioned, no European

quarter in Suakin. Consequently, resident foreigners must occupy houses located amid the native element, and this, as any one who has tried the experience will confirm, becomes anything but agreeable. The native Mohammedan population of all Eastern towns and cities, such as Constantinople, Smyrna, and other centres, are accustomed to live under conditions of noise, squalor, and disorder entirely repugnant to Western ideas.

In Suakin the few residences occupied by Europeans—the Government Inspector's palace excepted—are entirely surrounded by the usually wretched-looking "houses" of the natives, in some instances constructed of little more than a number of wooden or iron poles across and over which are stretched layers of old rags or scraps of tin, filthy sheetings, or discarded pieces of rotting wood, the roof protected from damage by rain and the strong winds which blow almost continuously, by mounds of broken bottles, empty tins, and other debris collected with much industry from the gutters and numerous muck-heaps.

Beneath these wretched and ugly shelters are housed not only the often large families of the poorer inhabitants, but the whole collection of their live stock in the form of asses, dogs, cats, and fowls. The combined clamour arising from this heterogeneous assembly both by night and by day, mingled with the continual screaming of neglected or ill-used children, produces a nerve-racking din in comparison with which the environment of Bedlam must seem complete peacefulness and profound silence.

Long before daybreak the loud nasal and resonant voice of the muezzin may be heard droning from the many mosque towers calling the faithful to prayer, while numerous lusty chanticlers and starving cats and dogs add their various cries to swell the general uproar. At no hour of the day—not even during that of the oppressive noontide—is there experienced any period of calm and tranquillity in Suakin. Altogether, residence therein—picturesque place though it be—scarcely attains to the perfection of comfort and convenience usually demanded by the non-Easterner.

Suakin came into the possession of Egypt in 1865 by

cession, or purchase, from Turkey—along with Massowa and one or two other towns with the districts around them. The town lies upon a small picturesque island measuring about one mile in circumference—almost equal in length to the small bay upon which it is situated, a mere tongue of water separating it from the mainland.

Crossing the tongue of land southwards, one arrives at the considerable suburb of El Gef, which has a much larger population than the insular town, very irregular streets, and dwellings which, for the most part, consist of native (Bishareen) huts. The bazaar is large and always thronged ; in the north-west portion of the town formerly stood the barracks, one section being armed with three pieces of cannon. Upon the outskirts are situated the wells—surrounded by gardens and date plantations—which supply the townspeople with drinking-water.

El Gef is actually a small oasis ; all around it, save seawards, extend many miles of salt water and arid wilderness. Indeed, the whole distance between Suakin and Berber, distant some 280 miles, is practically desert, here and there being found water-wells and temporary encampments of the nomadic Bishareen Arabs, with occasional tents of the Hadendawas, a somewhat similar race of people, who possess the wilderness from east of the first cataract of the Nile as far as Kassala and the boundaries of Abyssinia. These tribes, although sometimes called Bedouins, are genuine Arabs of the Semitic, while the Bishareen are members of the Hamitic, family.

Notwithstanding the growing importance of Port Sudan, an enormous number of camel caravans continue to pass between Suakin and Kassala in the south ; Berber, in the west, now being served by the railway, has probably seen almost the last of the slower if more picturesque form of road transport. Many thousands of Mohammedan pilgrims travelling the road to Mecca stay a while at Suakin, their destination, the port of Jeddah, occupying a corresponding position on the Arabian coast to that which Suakin holds on the African shore. Some fifty years ago as many as three or four thousand slaves per annum were shipped from Suakin

to Jeddah ; this monstrous traffic has now been 'uppressed for ever.

In ancient times the whole of the seaboard—extending northwards along the coast as far as a line drawn from the first cataract, and southwards as far even as Bab-el-Mandeb—was known as the troglodyte country. The troglodytes, as the name implies, dwelt in caves ; by occupation they were herdsmen, and often they were found to be uncivilised and debased in the extreme.

A graphic picture of the hard life of an earlier troglodyte people, dwelling in the rocky fastnesses east of Jordan, is preserved for us in the Book of Job. "For want and famine," says the ancient record, "they were solitary ; fleeing into the wilderness in former time desolate and waste ; who cut up mallows by the bushes, and juniper roots for their meat. They were driven forth from among men (they cried after them as after a thief), to dwell in the cliffs of the valleys, in caves of the earth, and in the rocks."

Pliny the elder, the old Latin writer, who died in A.D. 79, also mentions in his enumeration of places situated upon this troglodyte coast, a town called Sucke, which, according to the general opinion of scholars, is identical with the modern port of Suakin.

There exist some individuals who consider the town of Tokar the most disagreeable in the Sudan as a place of residence. There are others who pronounce the climatic conditions from January to early May as "quite agreeable." My own experience of the place, gained in the latter days of December, compel me to rank myself upon the side of the extreme pessimists. Certain it is that even the local officials—European and native alike—fly speedily from the place after the month of May, for then human life, on account of the sand, the wind, the heat, and the millions of pestilential insects, becomes unbearable.

Tokar lies 52 miles S.S.E. of Suakin, and 17 miles from the Red Sea coast, in latitude 18° 15'–18° 30' N. Trinkitat is the harbour for Tokar. This small and dangerous harbour is formed by the delta of the Khor Barraka, which rises in Eritrean (Italian) territory, and flows intermittently during

July, August, and September—flushes being most frequent in August. During these months the delta is in part inundated. The irrigated areas depend upon the direction which the chief branching channels have taken at the apex, since these are apt to vary their course from year to year. The annual discharge of the Khor Barraka is 200 million cubic metres.

In addition to the above flooding, Tokar receives a winter rainfall, which is rather erratic, but falls mainly in December, January, and February, to the amount of about 6 inches per annum.

The Red Sea climate is favourable for the growth of cotton: neither high maxima nor low minima temperatures are experienced during the cotton season. This condition is due to the proximity of the sea. For the same reason the atmospheric humidity is high.

The town of Tokar, so near the scene of the late Baker Pasha's disastrous retreat in 1884, was relieved by Sir Gerald Graham, whose infantry troops, fighting in the middle of the tropical rainy season, had to tramp from Suakin on the coast through a belt of liquid mud and sand. The men took off their boots and socks, carrying them slung around their necks, thus leaving their feet free and the better to assist them in moving the heavy commissariat wagons which had become deeply embedded in the sticky, clinging sands. At this season of the year the whole of the Trinkitat marshy plain becomes saturated, and it is said that during these few dismal and depressing weeks as much rain falls on the Red Sea littoral in one hour as is met with usually during one whole week's steady downpour in any European climate.

Many substantial and much-needed improvements have been introduced into the town of Tokar within recent years. One notices almost at once the general orderliness, the cleanliness, and the apparent contentedness of the people, a condition of things brought about, as I understand, through the intelligent rule instituted by the local Inspector and his subordinates, especially the Egyptian officers. Nothing that human enterprise or ingenuity could accomplish or devise would ever make Tokar a desirable place of residence ;

but it has at least been rendered habitable for a certain period of the year, and to this distinction it would hardly have attained but for the innovations above referred to. Both European and Egyptian officials have worked hard, and they have accomplished much.

The general prosperity of Tokar may be fairly gauged when one sees many of the dusky Tokruri boys strolling down the main street of the town wearing, with an air of proud possession, brand-new tarbooshes, clean collars, fancy silk waistcoats, in all the colours of the rainbow, and languidly swinging their obviously new and expensive walking-sticks.

Erkowit is a small town answering the same purpose as Simla, India, as summer headquarters for Government officials. Occupying a pleasant position upon the undulating plateau composed of low granite hills and well-timbered khors, the settlement stands some 3000 feet above the level, and at a distance of 35 miles from the town of Suakin. The station has gradually expanded, and the Governor-General has built for himself a particularly pleasant residence to which he retires when the heat and the dust of Khartoum become intolerable. The character of this residence as of other official buildings is unpretentious; the houses are mainly constructed of wood with corrugated iron roofings laid over felt, the floors raised about one foot above the ground, upon iron piping, as a protection against the ravages of the white ants, which infest this region of the Sudan. An excellent supply of pure water, derived from several wells situated in the khors, is found one of the greatest attractions of life at Erkowit. The town is placed in full telegraphic communication with Suakin and Khartoum, and consequently with the rest of the world. In summer the climate is dry and healthful, unlike that of either Tokar or Suakin. But during the winter months heavy clouds collect above and shroud the hills, a continual "Scotch" mist then being encountered. The available means for road and rail communication with Erkowit are still incomplete.

CHAPTER XLIX

Province of Sennar—Area—Population—Scenic features—Game—Old Sennar kingdom—Gordon's visit—Sieges and destruction—Dervish rule—Sennar old town—Modern town and buildings—Experimental farms—Mamurias—Dar Fung—Karkoj—Singa—Government buildings—Roseires—Battle (1898)—Military works—Police force—Strength increased—Troubles on Abyssinian frontier—Education—Gebel Moya—Wellcome teaching natives—Indolence turned to industry—Widespread influence—Abyssinian history—Effect upon the Sudan—French hostility—Menelik's treachery—Italian reverses—Defeat of Baratieri (1896)—Sobat-Pibor.

SENNAR Province, with an area of 38,700 square miles and a population estimated at 151,981—including both sedentary and nomadic,—is one of the more interesting of the departments. It is destined, by reason of the great irrigation works of which it will soon become the centre (previous to the outbreak of the European war a dam had been already commenced, but work had been suspended), to rank undoubtedly as one of the most important in the Anglo-Egyptian Sudan.

The country near the Blue Nile wears a pleasing scenic aspect owing to innumerable patches of green shrubs and small trees. The variety of the plants is considerable, comprising talh, harhab, kitr, soyal, kurmut, heglig, laat, and sidr, specimens of botany but little known to Europeans. The interior of the country is somewhat depressing, with its limitless expanse of the pebble desert, cotton soil, and thorn bush, its absence of roads and very scanty population. Upon the river banks one may catch many charming glimpses of tropical scenery, while here dense forests exist, the tree branches sweeping down to the water's edge and harbouring thousands of monkeys, red and grey, black

and brown, countless gorgeously coloured birds and many beautifully flowering creepers. Unfortunately this terrestrial paradise likewise forms the haunts of the detestable serut fly, which appears and disappears with the rains, while mosquitoes in countless myriads plague the life of the human dwellers in these parts. Game is plentiful—elephant, buffalo, giraffe, hippopotamus, hartebeeste, triang, roan antelope, kudu, waterbuck, bushbuck, *Cobus leucotis*, gazelle, lion, leopard, cheetah, and numerous other wild beasts abound.

The old empire of Sennar, of which the town of the same name formed the capital, extended, under the powerful Fung kings, from the Abyssinian frontier on the south to Dongola on the north, and thence along the entire length of the Blue Nile and the main Nile as far as the present Egyptian frontier province of Wadi Halfa. One by one the integral parts of this federated kingdom were lost in battle or seceded, and at the time of the final conquest at the hands of the Egyptian Ismail Bey (a son of Mohammed Ali) the whole empire was in a condition of disintegration. It was annexed to Mohammed Ali's Sudan possessions in 1838. After negotiating with King Johannes and the rebellious Prince Walad el Michael of Abyssinia in 1877, General Gordon stopped at Sennar on his way to Khartoum to be installed as Governor-General.

In April 1882 the garrison of the town of Sennar attacked an enormous force of Dervishes sent against them and led by a nephew of the Mahdi. These ruffians encamped in the neighbourhood, and proved so strong that they were easily enabled to repulse the attack of the Egyptian troops, who were compelled to retreat to the shelter of their town. Here they shut themselves up in the Government buildings, which they succeeded in defending. For three days they were besieged, and the greater part of the town of Sennar was given up to murder, plunder, and fire. Many of the luckless inhabitants were killed, as well as a number of foreign merchants, officers, and soldiers who happened to be there, for the Dervishes in those days, like the Germans and Russians in these, knew no mercy and recognised no law of belligerents when fighting their enemies. Of the two

sets of combatants, however, the Dervishes and the Germans, the African "savages" proved themselves perhaps the less inhuman in their methods of warfare, and decidedly less brutal in their treatment of children and women than the "cultured" Teutons.

In 1884 (November 15) an armed force was sent by Gordon to clear the country of the Dervishes still collected around Medinet; in that month the hero of Khartoum reported in his *Journal* (Book VI.): "They state the Mahdi sent a party of Arabs to Sennar, but the garrison sallied out and killed nearly all of them." Thereafter followed the abandonment of the town according to the orders of the British Government, a determination which, after its gallant defence, disgusted Gordon intensely. The place, however, still continued to hold out bravely, as did Kassala, until the very end of the year.

At present there exist two distinct towns of Sennar—the old, completely ruined and abandoned, a place which, as before said, owed its partial destruction in 1884 to the Mahdi, who had likewise massacred or dispersed nearly the whole of the unfortunate inhabitants; and the new but much smaller town constructed by the present Administration upon a spot located higher up-stream, and an elevated plateau.

Old Sennar in its time must have been a place of considerable size and consequence, for even in its present ruined state it covers a considerable area of ground. The former population (at the time that the Mahdi seized it) is said to have exceeded 20,000 souls, while many hundreds of natives came in on certain days to attend the important market which was held there.

For a second time also Sennar suffered heavily from the raids of the Dervishes. It was almost in ruins in 1898, at the time that the British troops occupied it, and the remnant of the inhabitants again fled. Important as the town must have been in former days, nothing of its grandeur then remained.

The city of "Sennaar" (as it then was spelled) when in its prime occupied an area of a league and a half; it was

very populous, its inhabitants being estimated at 100,000. This ancient place was situated on the west bank of the Nile, upon an eminence at 13° 4' of northern latitude, according to the observation made by Father Brevedent at noon on March 21, 1699. The king's palace was surrounded by a high wall made of sun-baked bricks of irregular shape, while the royal apartments were richly furnished with numerous large carpets, after the luxurious manner of the Levant.

Another important town in this province is Roseires, where the Nile divides into three distinct branches, only one of which, however, is navigable at all times of the year. Much has been done to improve the town of Roseires, and undoubtedly it has responded generously in appearance to the care and outlay which have been lavished upon it. While the great majority of the native residences, as well as the mosque and school-house, are crudely constructed of mud and palm-tree stalks, the streets are wide and well shaded by fine tebeli trees.

The town contains the residences of an Inspector and a Mamur: considerable commerce is carried on, the two opposite banks of the river being connected by a ferry service. A garrison of one company of native troops is maintained here under a British officer, while a Government gunboat also has its station at Roseires. The population mainly consists of Hamar and Sudanese tribes, and on the whole it seems to form a prosperous and increasing community. A battle was fought here in December 1898.

The town likewise forms one of the centres of the operations carried on by the Slave Repression Department. At one time a thriving traffic in human flesh seems to have been conducted around this district, most of the slaves captured by the Abyssinian Arabs having belonged to the Gallas, who were sold at highly remunerative prices for employment in the Egyptian Sudan. Other markets were found at such far-distant centres as Kassala, Tokar, and Suakin, and even as remote as Gedaref. The market value of a healthy male adult slave was between £E4 and £E6, a female fetching something less.

The military constructions, which were completed and

occupied in 1906, consist of a Commandant's office, a capacious and pleasant barrack-room, several large store-rooms, a hospital, and the police quarters.

Unfortunately the surrounding ebony forests are being rapidly destroyed owing to the immense amount of wood which is being recklessly drawn from them to serve as fuel to feed the river steamboats. Apparently no fresh planting is done. Were but one new tree set where two old ones had been removed, in ten years' time the appearance of the landscape would be greatly improved, while the value of the timber available would remain almost unaffected.

A scheme for logging and rafting wood from this province to Khartoum on the flood has been suggested, but not, as yet, put into execution. The natives find that it pays well to collect drift-wood and raft it down to Wad Medani, so that it would seem that this experiment is well worth trying. But there is urgent need for the province authorities to take strong measures to stop the natives from poaching new timber and including in their "drift-wood" any of the by no means too plentiful forest trees forming standing timber.

The Provincial Government's headquarters are now at Singa (also spelled upon occasions "Senga"), this town having been so distinguished since 1905. Always ranking as a considerable village, Singa has now become a thriving town, notwithstanding the fact that the great majority of the houses are but modest straw *tukls*. The Government buildings, however, are of brick, and are both commodious and adequate. The general prosperity of the people is apparent, while the trade returns from official sources indicate that this prosperity has been fairly progressive. Most of the inhabitants cultivate the soil, but their occupation is entirely dependent upon the rainfall, except for a few *sakias* and *shadoofs*, of which there are perhaps 50 and 140 respectively in the whole province. Roseires possesses 3 *sakias* and 30 *shadoofs*, Singa has 22 and 66, and Sennar claims 26 and 40 respectively.

The Government has very wisely established some experimental agricultural farms in this province, at Singa,

Saoleil, etc., where "dry-farming" is carried on the crops raised thereon include sesame, dura, cotton, and ground nuts, all of which up till now have proved encouraging.

An experimental plantation at Saoleil has also done fairly well, notwithstanding the small rainfall that has visited the district since the plantation was set out. The trees have now arrived at the tapping stage, and encouraging results are confidently anticipated.

The province is divided into seven mamurias or districts as follows: Dar Fung (the mamuria being at Soda), Dinder (mamuria at Abu Hashim), Karkoj, Kurmuk, Roseires, Sennar, and Singa. Dar Fung marks the commencement of the dense forest district, which stretches continuously east and west, from Nile to Nile. The town of Dar Fung is situated in a district of little value compared with its great importance of former days. The Fung tribe, which inhabited the whole of the surrounding country, was extremely powerful; and although the race still continues to exist—a genuine Fung now rules as the *mek* or "king" of Dar Fung—its power has been broken for all time. The principal trade carried on is conducted with Abyssinia immediately adjoining, lengthy caravans passing to and fro through Keili, the headquarters of the district of Dar Fung.

Dinder takes its name from the river upon the banks of which the small village is built. The river rises in the Abyssinian mountains in the south-west of Dunkur, and after flowing for about 50 miles through very mountainous country, enters the plains of the Sudan and courses about 200 miles north-west to join the Nile. Only a small amount of cultivation is carried on there. The river has been navigated by steamers as far up-stream as Dekerki, located at a distance of about 120 miles from its junction. Large sailing boats of native construction can ascend as far as the village of El Safra only during the period that the river remains in flood—that is to say, during three months in the year. The Dinder also waters a portion of Abyssinia, and is navigable there during the rainy season only.

Karkoj, a small village standing upon the right bank of the river, ranks as of little importance. The population

barely exceeds 1200, while no post or telegraph office is maintained there at present. Formerly a District Inspector had his headquarters at this village, but some years ago (1905) the official residence was removed to Singa.

This town, which then became the headquarters of the Provincial Government, is a place of considerable size, ranking next in importance to Wad Medani, now regarded as the headquarters of the Blue Nile Province, but formerly geographically situated in that of Sennar. Singa stands upon the left bank of the river and some little distance inland. The character of the soil of the surrounding district is considered very fertile, while the country in parts is thickly wooded. The town of Singa was founded about 1886 by one Abdalla Wad-el-Hassan, and the inhabitants consist mainly of members of the Jaalin and Kenana tribes.

The majority of the native houses, market-stalls, and other edifices are built of straw and of mud, while the substantial Government buildings constructed of brick include the Governor's residence (completed in 1906), the Inspector's house, some seventeen or eighteen different quarters for officers and employees, the prison, the hospital, the police barrack-room, stables, servants' quarters, etc. etc. Nearly the whole of these buildings have been in existence since 1906.

Education has received careful attention in Sennar, as in other provinces; the majority of the pupils are admitted free owing to the fact that their parents already pay the education rate. The general standard attained is described as satisfactory, the parents apparently appreciating the educational facilities afforded, more especially as the successful pupils become qualified for clerkships under Government.

Since 1910 excellent practical educational work has been conducted by Mr. Henry S. Wellcome at his extensive archaeological camp at Gebel Moya, 26 miles from Sennar. In the course of his operations Mr. Wellcome has employed some thousands of raw untrained natives and taught them discipline, as well as various crafts and industrial methods. Furthermore, he has converted them from indolence and degradation to habits of industry and thrift.

Many of these natives trained by Mr. Wellcome when not required for his work, engage in profitable pursuits on their own account, while others readily obtain lucrative employment. Here, verily, the crudest of inert waste human material is being transformed into an active productive element valuable to the community and to the State. Mr. Wellcome has done much for the moral, intellectual, and general improvement of the Sudanese, and the influence of his work is by no means confined to Sennar Province, but is widely felt in other parts of the country.

Sennar Province should one day prove a valuable contributor to the general revenue of the Sudan, on account of its hitherto almost untouched but admittedly wealthy gum forests. These exist to an unknown extent in the districts of Singa, Karkoj, Dinder, and Roseires. The collection of both hashab and talh gum is increasing year by year in this province. In the as yet untapped forests lying between the two Niles in the neighbourhood of Jebel Masyum, hashab is found in considerable quantities.

The important irrigation work which has already been commenced in this province in connection with the Gezira scheme, is referred to at length elsewhere in this volume.

The present strength of the police force for the province was until lately only about 320 N.C.O.'s and men. Considering the varied duties which this body is called upon to perform and the wide area of its district, the police force of Sennar appeared a remarkably small one numerically. Latterly, however, the force has been strengthened by the addition of some 40 mounted men, urgently needed for service in the southern districts along the Abyssinian frontier, where the authority of the Government, unless supported by visible force, is apt to be flouted and defied.

It has already been shown that Sennar is one of the three provinces of the Sudan which adjoin the empire of Abyssinia, the other two being those of Kassala and Mongalla. In all of the frontier provinces the closest official watchfulness is necessary. The people of this immense country adjoining have seldom exhibited any great friendliness towards the British, nor indeed towards any Europeans,

whom they regard, not perhaps without reason, with some suspicion.

At one time or another the Abyssinians have found themselves in armed conflict with Great Britain, France, and Italy. Our own record in Ethiopia is not an altogether spotless one, and in some respects reflects discreditably upon the policy of our Government. The British expedition which was sent against King Theodore I. in 1868 under Sir Robert (later Lord) Napier of Magdala, though triumphant in point of arms, procured really but little benefit for ourselves, and even less for the Abyssinians; subsequently we permitted the French to counter such commercial advantages as we had already obtained, and only the deep feeling of suspicion against all Europeans entertained by the Ethiopians already referred to, and which became more fully aroused by the acts of the French representative of that day at Adis Ababa, prevented Great Britain from being completely superseded in Abyssinia by her Gallic rival.

Just as the French had opposed us in Egypt, and had employed the most questionable methods of conducting this opposition, so had they inspired native feeling against us in Abyssinia, under the aegis of M. Legarde, the then Governor of French Somaliland. He finally induced King Menelik (who had succeeded to the throne of Abyssinia in 1889) to sign the far-reaching Convention of Adis Ababa, which gave over to France practically a monopoly of European commercial enterprises. The same enterprising Frenchman further secured his own appointment as Minister at the Abyssinian Court, a clever move which nevertheless failed to draw any protest from or counter-move upon the part of the somnolent British Government at home. Many years afterwards (in 1897), under a fresh Cabinet at St. James's, Mr. (now Sir) James Rennell Rodd was despatched to look into matters, and a Treaty, of little importance—was entered into with Great Britain, a commercial compact in no way comparable to that secured by M. Legarde.

A further period of inactivity then ensued, but in 1898 a British Resident was sent out to Adis Ababa, the appointment fortuitously falling to Lieutenant Harrington

(now Sir John Lane Harrington, K.C.M.G., C.B.), who at once set himself the task of counteracting the growing hostile foreign influences and of restoring British prestige. He succeeded in the latter to an appreciable extent; and since 1898 our relations with the Abyssinians have improved as far as can be expected under present uncertain conditions.

The French had helped King Menelik to import large quantities of arms and ammunition through their small colony on the Bay of Tajaruh. No sooner had he been thus equipped than Menelik denounced the Treaty of Uchali (into which he had entered with the Italians in May 1889), and by virtue of which the Italian Government held—or thought that they held—a protectorate over Abyssinia. Soon afterwards, however, they were disillusioned, for in trying to enforce their authority they suffered a disastrous defeat at the hands of Menelik, the Italian troops under General Baratieri being almost annihilated at the disastrous battle of Adowa on March 1, 1896. Thereafter no further attempt to “protect” the Abyssinians has been put forward by Italy, which has contented itself with making a new treaty—signed at Adis Ababa in the same year—a convention, no doubt, which will be observed by the present Ethiopian Government just as long as, and no longer than, it may suit their convenience; the pact may yet meet with the same amount of consideration as did the Treaty of Uchali.

Gun-running through Abyssinia and the French and Italian Red Sea colonies is a constant source of trouble and danger to the Anglo-Egyptian Sudan. If further Sudan territory is given to Italy the menace will be increased.

The frontier delimitation between Abyssinia and the Anglo-Egyptian Sudan was formally agreed to in 1902, but this has in no way put an end to the troublesome traffic in contraband. Through the numerous mountain passes quantities of forbidden arms and ammunition continue to find their way into the Sudan notwithstanding the great vigilance and precautions exercised by the authorities. Probably the traffic can never be completely stopped, but it can be, and is being, kept within certain limits by increasing the number and strength of the military patrols

employed by the authorities on the Sudan side of the frontier, consisting of men who are engaged especially for the purpose. As a force, these troops are pronounced quite satisfactory.

But for their services the position on the Abyssinian border would soon become intolerable. "Still profoundly unsatisfactory," was the official description of the situation at the end of the year 1914. Had it not been for the uncompromising attitude of the Abyssinian authorities, the strong military patrols sent by the Sudan Government to the Nuer districts of the Garjak and to the Anuak country to the south of the Sobat would have proved quite successful in establishing control over the natives living on the Sudan side of the frontier. Commenting upon the unsatisfactory state of affairs in his official report the Governor-General said:—"It seems idle to hope in the near future that control by the Ethiopian Government of the passage of arms from the Abyssinian side of the border, which as a preventive measure would be of the greatest value, will become effective; and the continual introduction to Abyssinia, via Jibuti, of arms in large quantities is a bad augury for the future in this respect."

The Sennar Province now comprises the Sobat-Pibor military district, containing an area of 24,400 square miles, and the two posts located at Akobo and Pibor.

CHAPTER L

Upper Nile Province—Area—Population—The Nuers—Condition of the people—Their agricultural pursuits—Cattle industry—Difficulties of the Administration—Nasser—Malakal—Educational drawbacks—New Government headquarters—Renk—Mosquito plague—Abwong—Abyssinian Frontier Station—Gambella—Kodok (Fashoda)—Marchand's expedition—Kitchener's intervention—Anglo-French agreement.

White Nile Province—El Dueim—Nomadic tribes—Cattle disease losses—Scenic attractions—Agriculture—Native market—El Getema—Goz Abu Guma—Greek traders—Tribes—Kawa—Wooding station—Reckless forest destruction—Kosti—Effect of the El Obeid railway—The swing bridge—Native town—Taufikia—Baker's headquarters.

THE UPPER NILE PROVINCE

THE Upper Nile Province is at once the most interesting and the most troublesome of the political divisions of the Sudan. It comprises within its boundaries some 36,000 square miles of territory, and has one of the largest populations of any of the provinces—exceeding 304,000. The Bahr-el-Ghazal with its complement of 1,000,000 alone exceeds this total. Among the tribes composing the province's population are the Shilluks and Northern Dinkas, the Nuers—who are separated into many different and often warring divisions—the Anuaks, the Gallas, and the two Arab tribes, the Selim Baggara and the Taaisha. The general prosperity of the people is very marked, and if only they could be induced to abandon their propensity for raiding one another and to settle down permanently to the pursuit of peaceful occupations, the province might easily become one of the most reproductive and profitable of the fifteen political divisions. Even as things are, however, there is reason to feel genuine satisfaction, since the receipts

of the Government departments remain in excess of the expenditure.

Agriculture forms the principal occupation of the people when not engaged upon the apparently greater attraction of committing raids upon their neighbours. There has been observed a more general tendency among the younger members of the different tribes—especially those of the Shilluks and Northern Dinkas—to cultivate the ground and rear cattle. Most of the people's wealth is found in their cattle and sheep, of which immense herds may be met with in the interior of the country.

An active trade is carried on nowadays between the natives and the Arabs, who have taught the former the value of money with advantage to themselves and to the Government, inasmuch as the latter is now enabled to collect taxes from the people who would—or could—not pay previously. Civilisation, however, has not as yet sufficiently advanced to enable anything like a system of education to be introduced; the province contains no regular schools, merely a few of what are known locally as *kuttab*s of a very primitive character. An educational beginning has been made by the establishment of a Government School at Renk.

This is the centre of a district of some importance, being one of the ten *mamurias* which the province contains—the others being Abwong, Gambeila (trading post upon the Abyssinian frontier), Kodok (formerly known as Fashoda), Malakal (the site selected for the new Government Headquarters and as a base of the Irrigation Department), Melut, Nasser, Tonga, Longtam, and Ayod.

The town of Renk is located upon the left bank of the White Nile district, about 300 miles from Khartoum. The surrounding scenery is monotonous in appearance, offering little but stumpy forest trees, thorny jungle, and coarse, useless grass. At Renk a severe action took place on September 15, 1898, when the Dervish "deim" was bombarded and taken, and a steamer captured. A terrible place for mosquitoes at most periods of the year, during the intense and dry heats the whole district becomes

impossible for European residents. Even the natives are rendered supremely miserable by the attacks of the insects.

Abwong, a town inhabited by the Dinkas, is located upon one of the main roads leading across country, and conducts to a small village called Gore—a rather suggestive selection in nomenclature. Gambeila—also occasionally spelled Gambela—is a valuable trading post, situated actually within Abyssinian territory. The administration of this post is usually encumbered by difficulties owing to the peculiar character of the Abyssinians and to the slowness and uncertainty of the communications. As an official report has pointed out—"the very considerable period which must inevitably elapse between the submission of any proposal by the local authorities and the receipt of approval for the same" constitutes an almost insurmountable barrier to effective control. The Abyssinians are unconscionable smugglers and gun-runners, and trouble among the native tribes will never be completely suppressed until the Government can control the illegal traffic in arms—largely imported from Germany before the war, but also from other foreign sources passing through French, Italian, and Abyssinian territories.

Nasser, where a Government post is also situated, occupies one of the most attractive positions from a scenic point of view upon the left bank of the Sobat River. The district is very well wooded and contains some stretches of country strongly suggestive of well-kept English parklands. The locality is inhabited by the Nuer tribes, whose villages are numerous. As examples of humanity the Nuers do not shine; they are lazy, treacherous, and intensely quarrelsome—in fact, a very low type of human being. When encountered they are usually perfectly naked.

At Nasser a garrison of two hundred men of a Sudanese battalion under a British officer is established. A police officer and a detachment of police are also stationed here.

Malakal has risen from an obscure village to a settlement of some importance on account of the Government headquarters having been transferred there from Kodok. It will, however, be some time yet before the transition can be completed, the outbreak of the European War having

had some indirect effect upon the construction of several of the official residences and Government offices, especially those destined for the use of the Irrigation Department. Malakal is deemed to be a healthier spot for European residents than Kodok ; the removal of the seat of government has proved popular.

In 1904 the name of the small White Nile post known as Fashoda was changed to "Kodok." "The Fashoda affair" had taken place some years previously, and, indeed, was but a sequel to the reconquest of the Sudan by Lord (then Sir Herbert) Kitchener. In March of 1895 an intimation had been conveyed by the British Government to the French Government—that there existed no *entente cordiale* in those days—that the valley of the Nile between the lakes and the southern frontier of Egypt was considered within the sphere of British influence. Three years later certain information was conveyed to Kitchener (September 7, 1898) that Fashoda had been occupied by "a white force." Proceeding at once to the spot from Omdurman, he there found the French flag flying, Colonel Jean Baptiste Marchand being in command and in possession. The Frenchman flatly refused to withdraw his troops at Kitchener's request, and, as a consequence, the latter ordered a British force to take prisoners the whole of the small French force.

During the two months Colonel Marchand was absent at Cairo, whither he proceeded at the request of his Government, he left Fashoda fort in the hands of Captain Germain. That officer conducted himself with great discourtesy, and occasioned considerable trouble to the British force, the officers of which, nevertheless, managed the situation with great tact and discernment and thus avoided friction. Upon the return of Colonel Marchand and his announcement that orders had been received from Paris to vacate Fashoda, Captain Germain completely changed in his manner and became even friendly.

M. Félix Faure was at this time the President of the French Republic, while Lord Salisbury was acting as Prime Minister of England as well as Foreign Secretary.

On November 5 of the same year the French Government

withdrew Colonel Marchand and his troops from Fashoda, not a shot having been fired by either party. The "incident," which at one time threatened to bring about a war between Great Britain and France, was finally diplomatically settled between the two Governments by a declaration signed on March 20, 1899, under the terms of which France was to withdraw altogether from the Nile valley and a new boundary between the British and French spheres was to be defined. Since that time no other cause of international trouble has arisen, nor is any likely to arise.

Colonel Sir Herbert Jackson, now Governor of Dongola Province, accompanied Kitchener upon his visit to Marchand, and was left in command of the British force at Fashoda. He took a very important part in the delicate negotiations necessary in carrying out Kitchener's orders. Colonel Jackson yet possesses the original friendly letter Colonel Marchand addressed to him on December 8, 1898, after the threatened trouble had been settled in the manner described. The subjoined copy of the document is of particular interest in view of the excellent impression created by General Marchand among the British military men during the late war, when the General, who was wounded at the beginning of the attack in the region of Suippe—some time in the month of September 1915—formed many new and lasting friendships among the Allies, once his opponents. In addition to being promoted a Grand Officer of the Legion of Honour, General Marchand was awarded the War Cross. An Order of the Day said that in the preparation and execution of the attacks with which he was charged, General Marchand gave new proofs of the highest military qualities and of classic bravery. Fully exposed to the enemy's fire, he indicated the trenches which were to be taken, and was severely wounded in leading his men to the assault. He inspired all with an unconquerable determination to follow anywhere. "Such a leader," concluded this Order of the Day, "was worthy to serve as an example to the most valiant." To all who met and learned to know General Marchand in the Sudan, this praise will appear in no way undeserved.

The letter sent to Colonel Jackson read as follows :—

Le Commandant Marchand, Chef de la Mission française du Congo Nil, à ses compagnons de Mission.

Messieurs—

Le Colonel Jackson vient de me remettre l'étendard mahdiste de l'expédition derviche qui, sur les vapeurs " Sofia " et " Teufkiah," attaqua Fashoda le 29 août dernier. La valeur de ce présent royal est encore augmentée pour nous par la délicatesse véritablement exquise avec laquelle il nous est offert, le Commandant du IIIème " bataillon soudanais " ayant bien voulu me dire en me le remettant qu'après l'écrasement des colonnes derviches sous Fashoda, l'étendard serait infailliblement tombé entre nos mains si à ce moment nous avions eu le Faïdherbe pour le recueillir.

Je vous propose de vous joindre à moi en signant cette adresse pour offrir au IIIème Soudanais et à son Commandant toujours en tête des colonnes d'assaut à Dongola, à Atbara et à Omdurman, l'expression la plus sincère de nos vifs remerciements et de notre entière sympathie.

A. BARATIER	J. GERMAIN	J. MARCHAND
(Cavalry Officer)	(Artillery Officer)	(Colonel Commanding)
E. LORGEAN	DR. EMILY	
(Lieutenant)		
C. LANOINOIS	A. DYE	C. DE GRAY
(Lieutenant)	(Naval Lieutenant)	(Lieutenant)
BERNARD	VENAIS	
(Lieutenant)	(Lieutenant)	

Au COLONEL JACKSON BEY,
Fashoda, le 8 décembre 1898.

Kodok is a singularly prosaic and uninteresting place in appearance. Standing on the left bank of the river, the village is approached by a narrow back-water ; the whole country around is extremely flat and covered with coarse grass, with here and there clusters of large umbrageous trees. The general aspect is monotonous, but is improving somewhat from day to day as the place becomes more settled and better cared for.

THE WHITE NILE PROVINCE

The White Nile Province, like that of the Blue Nile, is classed among the smaller of the departments, extending in area to but 14,700 square miles, and having a population estimated at 155,000. This total, however, in all probability, is an exaggeration, the number being nearer 120,000. Of this the adult male population amounts to 62,000.

The various *mamurias*—seven in number—are Dueim, Geteina, Kawa, Rabak, Jebelem, Tendelti, and Kosti. In practically all of these different sections of the province the material condition of the people has suffered in consequence of damage caused to flocks and herds due to the lateness of the rains—or to their absence at frequent periods. All this naturally has occasioned much poverty.

One observes, however, that the natives—mostly resident, there being only one or two nomadic tribes settled in the district—are ordinarily better clothed and fed than some of the Sudanese, there being in normal times an abundance of employment available at remunerative rates of pay for all who care to seek work; and the majority of the men seem willing enough to sell their labour, especially at the time when food is both scarce and expensive.

The nomad tribe of Beni Gerar own large flocks of sheep and cattle, and seem ordinarily to be fairly prosperous. Prevented under the Government ordinances from purchasing or keeping slaves, as they were privileged to do during the Mahdi régime, they have become more self-reliant, with corresponding advantage to themselves and the community.

The past few years, however, proved less kindly to these tribes than previous seasons, many of their cattle having died from starvation and others from disease owing to the exceptionally dry weather. In the southern portion of the White Nile Province rather better conditions have prevailed; here cattle disease has not been met with, and as a consequence the people have been enabled to buy grain with the produce of their sales, an experience denied to their less fortunate northern neighbours.

El Dueim has lost much of its long-retained importance as a produce-market since the railway came to El Obeid, thus proving the truth of the adage that "the web of life is of a mingled yarn, good and ill together." What brought success and prosperity to the one town has meant practical extinction for the other. Many of the most prominent merchants have now left El Dueim after transferring their businesses and their residences to El Obeid. Residences to-day realise less than 50 per cent of their former value, while more than three-fourths of the business premises lack tenants. Everything else has become of correspondingly less value, and the town of El Dueim seems to be in a rather bad way.

El Dueim indeed is but a large scattered village. The large white-domed tomb of some dead and forgotten sheikh, whose sepulchre may be seen many miles distant glistening in the brilliant African sunlight, marks the position of the town from a long way off. Although still regarded as the headquarters of the White Nile Province, El Dueim possesses scarcely more than 8000 people out of a total population (for the province) of 155,000. The large market-place is now but sparsely attended; an air of lassitude oppresses strangers entering the town, as no doubt it must affect the official element residing therein. Substantial Government offices—too large, apparently, for the amount of work now carried on—and substantially built barracks have been erected. Round and about the town one sees serious attempts at agriculture, an industry, indeed, which forms the province's mainstay. Along the fore-shore of the river, also, a considerable amount of cultivation is met with, nearly 200,000 feddâns being assessed for "ushur."

The markets at El Dueim, like those at Geteina, Kawa, and Kosti, are now owned and conducted by the Government instead of being rented to native contractors. The innovation not only proves more popular with the people who use the markets, but results in an increased revenue to the authorities. •

El Geteina (or, as it is sometimes called, Zeinoba) is a

large village divided into two different parts, and forms the headquarters of the district. The village is situated about 55 miles distant from Omdurman and 180 from Khartoum by road, and contains both postal and telegraph offices. The whole surrounding country is flat, but by no means unpleasing to the eye.

Goz Abu Guma (formerly a *mamura*) is the headquarters of the district of the same name. It stands upon the right bank of the White Nile, opposite the island of Wurelat. This island, like others of a similar nature, makes its appearance in the river during the months of January and February; then it is covered with large coarse grass, very brilliant in colouring. The eastern channel opposite to Goz Abu Guma dries up completely during the rainless season. The village contains about 400 inhabitants, who dwell in picturesque beehive-shaped *tukls*. A few Greek merchants maintain a collecting station here during the gum-gathering season, such produce coming for the most part from Kordofan, the principal market for the material. The inhabitants number among them Danagla, Jaalin, Gowama and blacks, the head Omda being himself a Jaali.

Kawa, a large village situated on the right bank of the Nile, is the official residence of a British inspector, as well as of an Egyptian *mamur*. At this port the river steamers stop to take on wood, while both telegraph and postal stations have been established there. It is a busy and apparently a thriving place, a large and well-attended market being held at frequent intervals, while a considerable activity exists in native boat-building. All around cultivation upon an extensive scale is carried on, the crop including wheat, barley, dura, onions, lubia, dukhn, bamia, and other produce. The dense forests in the immediate vicinity provide the wood which the river steamers require for fuel, but as no fresh planting is even thought of, it can be only a question of time—and a very short time—before the district will become completely denuded.

Although the town of Kosti has lost something of its original importance as a receiving and distributing centre since the continuation of the Wad Medani railway as far

as El Obeid, it still remains a busy place, and the focus of considerable commerce. Situated upon the east bank of the Nile, Kosti lies some 180 miles from Khartoum, with which town it is also now connected by railway. The *murkaz* consist of about fifty different villages, and, ordinarily, the population numbers between 7000 and 8000. During the rainy season, however, the total of the inhabitants barely reaches to as many hundreds, for all who can leave the town then do so in order to cultivate their small plots of land—whole families and villages working vigorously while the beneficent rains enable them to till and plant the ordinarily adamant ground. Kosti itself at this period of the year becomes a dead place; even the Egyptian residents and officials find little to do, while the Europeans, to a man, deem it convenient to take their annual leave at home. The myriads of mosquitoes and sand-flies, which are the bane of the Sudan at certain periods of the year, then have the place to themselves.

The town contains but few buildings of any importance. The one-time grass and straw built mosque has given place to a more substantial square-shaped erection of cut stone with battlemented walls, the foundations resting upon inverted arches; the cost has amounted to something like £E2000, subscribed by the natives and Government.

Kosti claims the distinction of lending its name to the remarkable railway bridge spanning the Nile at a point several miles below the town and forming a notable river-mark. The construction is considered to rank as one of the finest of its kind; it is of the swing type, thus enabling the river steamers which stand high out of the water to pass up and down stream without difficulty or any great amount of delay. The bridge is 500 yards in length and is carried upon eight fixed spans and one swing span. In addition to the iron bridge there are between fifty and sixty ferries continually plying between the opposite shores.

The river station of Taufikia is located at a distance of some 550 miles from Khartoum, and forms the distributing centre for the important trade carried on on the Sobat, the Bahr-el-Ghazal, and the Bahr-el-Zaraf Rivers. The official

buildings are numerous and well constructed of brick, or of iron and wood. The native troops' barracks are also of brick, while a large number of comfortable small bungalows afford accommodation for the European and Egyptian staffs. At Taufikia, as in so many other parts of the Sudan, the Greeks possess a practical monopoly of the trade, which, up till lately, when the outbreak of the European War seriously affected business all through the Sudan, was of a very satisfactory character.

At this spot Sir Samuel Baker, the great explorer, made his headquarters in 1865, the settlement being named by that distinguished traveller after the Khedive Tewfik, his generous employer and patron. A very favourable impression is occasioned by the generally neat and cleanly appearance of the town seen from the river bank. A tour through the streets in no way tends to destroy the pleasing effect produced.

The Province Governor resides at El Dueim, as does the Senior Inspector, while three other inspectors—with one for judicial work for the neighbouring province of Berber—are located at Kosti, Geteina, and Kawa.

APPENDIX A

TAXES throughout the Sudan vary slightly according to the particular province. The following, however, are general throughout the country, while the Taxes, Rates, and Dues under the headings "Khartoum" and "Omdurman" relate only to those towns.

I

ANIMAL TAX OR HERD TAX

Per horse . . .	15 p.t. yearly	Excepting the camels of nomads in Blue Nile, Kordofan, Kassala, and White Nile Provinces, for which the rate is 15 p.t.
Per camel . . .	20 p.t. "	
)	
Per donkey or mule .	3 p.t. "	Excepting Dongola, Halfa, Mongalla, and Upper Nile Provinces and among certain Barun tribes, where the rate is $\frac{1}{2}$ p.t.
Per goat . . .	1 p.t. "	
		Excepting Robatab District in Berber the Mongalla and Kordofan Provinces, and nomads of Sennar, for which the rate is $1\frac{1}{2}$ p.t.; and excepting Halfa, Dongola, and Upper Nile Provinces and nomads in Kordofan, certain Barun tribes and people of Tabi Hills, the rate being 1 p.t.
Per sheep . . .	2 p.t. "	
		Excepting Robatab District, Mongalla, Upper Nile, and nomads of Kordofan, for which the rate is 7 p.t.; and excepting Halfa Province and certain Barun tribes, etc., for which the rate is 5 p.t.
Per head of cattle .	10 p.t. "	
)	
From	Nov. 27, 1912	Amended March 3, 1913

II

"SUK" OR MARKET DUES

FEES ON SLAUGHTERING AND SALE OF ANIMALS (THROUGH THE SUDAN)

Animal.	Sale Fee. (P.T.)	Slaughtering Fee. (P.T.)
	(Paid by Seller.)	(Paid by Butcher.)
Camel . . .	5	10
Horse . . .	5	..
Cattle . . .	4	10
Calf . . .	..	5
Mule . . .	4	..
Donkey . . .	3	..
Sheep . . .	2	2
Goat . . .	1	2

The whole of these taxes—with the exception of that upon mules and donkeys—have been raised of late years, the values of all animals having advanced considerably. With the animals tax, the tribute of the nomad Arab tribes, whose wealth is chiefly in animals (the number of which, however, it is practically impossible accurately to compute, owing to the roving disposition of the owners), was also introduced and fixed:

"Suk" charges on sale of wood or grass, 2½ milliemes per donkey-load.

"Suk" charges on sale of wood or grass, 5 milliemes per camel-load.

"Suk" charges on sale of durra, 10 milliemes per month for stall.

III

TRADER'S TAX

Class.	Assessed.	Annual Profit.	Tax Payable.
1	Above	£E600	£E4 for every complete £E100 of profits.
2	"	£E500 to £E600	£E20
3	"	£E400 " £E500	£E16
4	"	£E300 " £E400	£E12
5	"	£E200 " £E300	£E8
6	"	£E150 " £E200	£E5
7	"	£E100 " £E150	£E3
8	"	£E66 " £E100	£E2
9	"	£E36 " £E66	£E1
10	"	£E24 " £E36	P.T.50

IV

Licences form a considerable part of the Government revenue. The principal licences are as follows :

Licence.	Khartoum City.	Omdurman and Khartoum.
Dogs	20 p.t. per annum	10 p.t. per annum
Liquor	£E50 per annum	£E50 per annum
Merissa and busah ¹	130 p.t. per month	130 p.t. per month
Guns ²	50 p.t. per annum per weapon for rifles or shot guns throughout the Sudan	
Revolvers and pistols	25 p.t. per annum per weapon throughout the Sudan	
Carters and lorrymen	10 p.t. per month	2 p.t. per month
Porters, messengers, and shoeblacks	2 p.t. per month	2 p.t. per month
Donkey boys	10 p.t. per annum for registration and number plate	
Donkeys, riding	4 p.t. per donkey per month	
Transport	2 p.t. per donkey per month	
Carriages	100 p.t. per man per month	

Game licences are of two kinds, the "A" licence costing £E50, and the "B" licence costing £E5. The first named entitles the holder to hunt the ordinary and some of the larger and rarer species of game, while the second restricts him to the smaller and more common varieties. In 1912-13 the revenue derived from this source was £2900, while it increased in 1913-14 to £E3900.

Lions, leopards, cheetahs, hyenas, and snakes and crocodiles do not come under the heading of "Game." They are classed as vermin and reptiles, and the holder of any gun licence may shoot them.

¹ *Merissa* is the native beer made from dura, and *busah* is a higher quality of *merissa*. These beverages very much resemble the Kaffir beer, and the sale of them is permitted under licence. *Araki* is a native spirit distilled from dura, and is very strong. The sale of the latter is strictly illegal, as, indeed, is the sale to the natives of any spirit (such as brandy, whisky, gin, etc.) even under licence. In 1913 there were eighty convictions for contravention of the Native Liquor Ordinance, the maximum penalty under which is a fine of £E100.

² This licence does not include the shooting of game except a very few birds for food.

V

KHARTOUM RATES, ETC.

Water Rate.—Water is supplied to the residents of Khartoum by the Public Works Department of the Sudan Government under contract. There are two kinds of contracts which consumers may enter into—"Abonné Supply," in which the consumer pays to the Government a monthly subscription which is fixed according to the requirements of the consumer; a "Metered Supply," under which the consumer pays $1\frac{1}{2}$ p.t. ($3\frac{3}{4}$ d.) for every cubic metre of water used plus 5 p.t. (1s. 2d.) per month for hire of meter, the Government reserving the right to make a minimum charge of $27\frac{1}{2}$ p.t. (5s. 8d.) per month inclusive of the hire of the meter. The Government in each instance installs all branch service mains and connections up to and including the valve or meter pits, the distribution piping and fittings from the valve or meter pits being put in by the consumer and maintained in good order and repair and free from leakage at the consumer's cost. In either instance consumers are requested to make a deposit. Under the "Abonné Supply Contracts" the deposits vary according to the fixed monthly payments agreed to, while with "Metered Supply Contracts" the deposits range from 50 piastres (10s. 3d) if a $\frac{3}{8}$ -inch meter is installed, to £E7.500 (£7:13:9) if a 2-inch meter is installed. Such deposits are held by the Government as security for all sums of money to become payable by the consumer, and on the termination of a contract the balance (if any) is refunded. The consumer is liable for any loss or damage caused to the Government arising through any defect or want of repair in his installation; but the Government does not hold itself responsible for any loss, damage, or inconvenience resulting from the impurity of the water supplied, or any interruption or failure of the water supply, even though such impurity, interruption, or failure be caused by the negligent act or omission of any of the Government's servants or employees.

Electric Light Rate.—Electricity is supplied to residents in Khartoum by the Public Works Department of the Sudan Government, from the power-station at Burri, at the rate of 5 p.t. (1s.) per kilowatt hour, the Government reserving the right to make a minimum charge of 150 p.t. for each arc lamp, 25 p.t. for each 8-c.p. lamp, and 50 p.t. for each 16-c.p. lamp installed, or in the case of an installation having more than a single incandescent lamp in any room, hall, verandah, passage, or place, a minimum charge of 100 p.t. per lamp per annum. The Government installs all branch service lines and connections

"up to such a point as shall be determined by the Government," but all the wiring of premises, brackets, fittings, etc., are put in by the consumer. The meter can either be bought from the Government at an agreed price, or the consumer may hire it for 5 p.t. per month; in the latter case a deposit of 100 p.t. is asked for as a guarantee for the safety of the meter. In addition to this deposit a further sum is demanded upon signing the contract (and this is retained by the Government as security for all sums of money to become payable by the consumer) at the rate of 10 p.t. per incandescent lamp up to ten lamps, and 5 p.t. for each incandescent lamp over ten, while for arc lamps the deposit is fixed at the rate of 50 p.t. per lamp.

House Tax is charged in Khartoum at the rate of one-twelfth of the annual rental.

Ghaffir Tax.—This used to be an optional charge upon the residents of Khartoum, who, in exchange for the payment to the Government of a small annual sum, obtained the service of night watchmen or ghaffirs. These men were supposed to keep a special look-out upon the houses and the property of rate-payers.

Town Rate.—The Ghaffir Tax was afterwards grouped with the Town Rate, and the inclusive charge under the combined heading amounted to 5 per cent upon the annual rental.

General Rate.—On January 1, 1914, both the Ghaffir Tax and the Town Rate were abolished; a new rate, known as "General Rate," being introduced, and the charge at the rate of 8 per cent upon the annual assessment levied.

Conservancy Rate.—Khartoum maintains the bucket system of sanitation, the monthly charge for this service being now 15 p.t. per bucket.

VI

OMDURMAN

NOTES ON RATES, TAXES, LANDING DUES, MARKET DUES AND ALL OTHER SUCH IMPORTS

General Rate

Local rates collected under the above at South Murada and Abu Rouf Murada:

A. Landing Dues—

1. *On Boats carrying Fuel and Grass*.—Fees ranging from 30 p.t. to 3 p.t. according to registered

tonnage of boat (e.g. 150 ardebs of tonnage or over pays 30 p.t.; 80 or over pays 25; 10 or over pays 5 p.t.

2. *On Boalloads of Goods (Corn, Cotton, Sesame, etc.).*—Fees of $\frac{1}{2}$ p.t. per ardeb or kantar as the case may be, if goods are reckoned by the ardeb or kantar. Otherwise, *timber* at 1 millieme per log and $\frac{1}{2}$ millieme per pole; *vegetables* at $\frac{1}{2}$ p.t. per netful; *hides* at 1 p.t. per bale; *halfa grass* at 1 p.t. per 100 bundles.

B. After Landing Dues have been paid, the owner or purchaser may leave his goods on the foreshore for 48 hours free, but if he wishes to leave them there for a longer period he has to hire a measured area of Government land to store them; each class of area being reserved for a specific kind of goods or trade as follows:

For timber: areas of 300 square metres at 5 p.t. per month.

For sacks of corn: areas of 100 square metres at 5 p.t. per month.

For palm branches and matting: areas of 50 square metres at 5 p.t. per month.

For corn by measure and any other goods: areas of 25 square metres at 5 p.t. per month.

For petty goods, vegetables, fruit, etc.: areas of 4 square metres at 1 p.t. per month.

For washermen's shelters: areas of 4 square metres at 2 p.t. per month.

For cobblers' shelters: areas of 4 square metres at 1 p.t. per month.

For boatbuilding shelters: areas at the rate of 5 p.t. per boat payable for the site.

APPENDIX B

I

EXTRACTS FROM THE NEW CUSTOMS ORDINANCE

Repeal

(1) THE Customs Ordinance, 1905, is hereby repealed.

(2) All laws, decrees, and regulations of the Egyptian Government relating to Customs which have heretofore been in force or observed at Suakin or elsewhere in the Sudan shall cease to have effect from the date on which this Ordinance comes into force.

(3) Paragraph 4 of the Proclamation published in *Sudan Gazette*, No. 60, dated the first day of March 1904, relative to the growth of tobacco in the Sudan and its import into the Sudan, is hereby repealed.

Exemptions from Export and Import Duties

9. The following goods are exempt from the payment of import or export duties :

(a) The personal apparel, articles of toilet, and similar effects of travellers visiting the country, including new articles of apparel and the like brought in their personal luggage and intended for their personal use, if they are duly declared ; but not including bicycles, phonographs, gramophones, sewing machines, and other such articles, nor consumable stores, cigars, cigarettes, or tobacco of any kind ; provided nevertheless that every traveller shall be allowed to bring into the country free of duty 200 grammes of tobacco or 100 cigarettes or 25 cigars, if some of the packet or box in which the same is contained has been used.

(b) Samples, provided they are not such as can be sold as merchandise.

(c) Samples of the products of the soil of the Sudan or Egypt, provided the value of the whole consignment does not exceed £100.

- (d) Gold or silver money, except as provided by section 115.
- (e) Gold or silver bullion.
- (f) Provisions and stores consigned from abroad for shipment on board some particular ship in a Sudan harbour and intended for use or consumption on board the same ship elsewhere than in the Sudan.
- (g) Printed books, pamphlets, magazines, newspapers, and other printed documents.

Exemption of Wrecked Goods

10. (1) Goods which have been wrecked are exempt from the payment of import and export duties, provided that they are not consigned to a Sudanese port.

(2) Provided that goods which have been wrecked shall be subject to the ordinary import duties on their value in their damaged condition, if they are used or consumed in the country.

(3) On wrecked goods which were not consigned to a Sudanese port being brought into the country, the full duties thereon shall be paid as a deposit, if required by the chief customs officer, and such deposit shall be refunded on their being re-exported.

Exemption of Goods transhipped and Goods in Transit

11. Subject to the provisions of chapter xii., foreign goods which are transhipped in the Sudan, or which pass in transit through the Sudan to a destination outside Egypt and the Sudan, are exempt from import and export duties.

Exemption of Personal Effects of Persons on first establishment in the Sudan

12. (1) The following articles of persons who come to the Sudan for the first time for the purpose of establishing a residence in the Sudan shall be exempt from import duties :

- (a) Used personal effects.
- (b) Used household effects, including furniture, linen, and utensils.
- (c) Silver and plated goods and other articles of household ornament even if new, provided they bear the crest or initials of the owner, but not including new furniture or new household linen or new household utensils.
- (d) Clothing even if new.
- (e) Jewellery.

(2) Wedding presents of persons who establish a residence in the Sudan, if not exempt from duty under the previous subsection, may be declared at 25 per cent of their value ; provided that this shall not apply to new furniture, new household linen,

or new household utensils, which shall be declared at their full value. 1

Goods imported from Egypt exempt from Import Duties

13. Subject to the provisions of chapter v., goods imported into the Sudan from Egypt are exempt from import duty.

Exported Local Goods when exempt from Import Duty on Reimportation

14. If goods of which the country of origin is Egypt or the Sudan after being exported to a foreign country are brought back into the Sudan, they shall be subject to import duty like goods of foreign origin, unless it is proved by the production of a certificate from the customs authority of the port to which they were originally consigned that they have not been taken out of bond there.

Certain Personal Goods of Residents which have been exported exempt from Import Duty on Reimportation

15. (1) If persons resident in the Sudan take or send abroad any goods which are of an easily identifiable nature, obtaining any drawback or refund of the duties already paid (if any), and give notice before export thereof to the Director with particulars sufficient to establish the identity of the goods, such goods shall be exempt from import duty on reimportation, provided their identity be established to the satisfaction of the Director, and subject to the provisions of the next section as to repairs and alterations.

(2) If the procedure mentioned in the last preceding subsection hereof be not followed, import duties shall be taken on the goods mentioned in the same subsection on their reimportation into the Sudan, unless it be proved to the satisfaction of the Director that these duties have already been paid.

Goods exported for Repair and reimported liable to Duty on Repairs and Freight only

16. If any goods be exported abroad without any drawback or refund of the duties already paid (if any) being obtained, and be there repaired or altered, and notice of such exportation be given at the time thereof to the Director, then upon reimportation such goods shall be liable to import duty only on the cost of the repairs or alterations, together with freight and all charges inwards and outwards.

The notice to be given at the time of exportation shall contain all such particulars as the Director shall reasonably require.

Foreign Goods on Re-exportation exempt from Export Duty

18. If goods of foreign origin not similar to goods of Sudan origin and capable of being easily identified are re-exported, they shall be exempt from export duty provided that they are identified to the satisfaction of the chief customs officer by the production of the detailed receipt for the import duties (*keshf*) proving the identity of the goods and the date of the payment of the import duty thereon, or by such other means as the chief customs officer may consider sufficient, but this exemption shall not extend to goods upon which drawback is allowed under chapter vi. hereof.

Import Duties

On all goods (except as otherwise stated in this schedule or provided in this Ordinance) at the rate of 8 per cent *ad valorem*.

On all goods being the products of the Italian Colony of Eritrea or of the Uganda Protectorate or of the Belgian Colony of the Congo or of the French Congo intended for consumption in the Sudan and not otherwise chargeable at a lower rate, at the rate of 5 per cent *ad valorem*.

On goods the products of the Italian Colony of Eritrea or of the Uganda Protectorate or of the Belgian Colony of the Congo or of the French Congo or of Abyssinia, on which if produced in the Sudan a royalty or tax is levied, a duty equivalent to such royalty or tax, but in no case less in amount than the customs duty levied on the import into the Sudan of other products of those countries respectively.

On coal, mazut, charcoal, and firewood : 4 per cent *ad valorem*.

On unwrought timber (except mahogany and other rare woods) : 4 per cent *ad valorem*.

On petroleum : 4 per cent *ad valorem*.

On oxen, cows, sheep, and goats, and the fresh meat of these animals : 4 per cent *ad valorem*.

On tobacco in leaf : 500 milliemmes per kilogramme.

On tobacco in leaf stripped of its "petiole" or middle fibre, and on tobacco manufactured, cut, or powdered or in cigarettes : 600 milliemmes per kilogramme.

On cigars whatever their quality or country of origin : 600 milliemmes per kilogramme.

On tombac in leaf : 500 milliemmes per kilogramme ; stripped of fibre : 600 milliemmes per kilogramme.

On all goods exported from the Sudan or transhipped in the Sudan, except as otherwise provided in the Ordinance, at the rate of 1 per cent *ad valorem*.

II

FOR TRAVELLERS AND SPORTSMEN

Powers to search Persons and Vehicles

It shall be lawful for the customs officers to search every person who passes through the gates of the customs enclosures or the examination office, and also every cart or carriage or other thing which is within the enclosures or passes through the gates.

Travellers' Baggage to pass through the Examination Office

Upon the arrival or departure of travellers their luggage and other property accompanying them shall be brought to the examination office for examination.

Declaration by Travellers

New articles, tobacco, cigarettes, and cigars imported in travellers' luggage shall be declared on the official form.

Travellers who have nothing to declare may be required to state so in writing on the same form.

Small Packages to be sent to the Examination Office

(1) Packages whether carried by hand or otherwise which have not been passed through the examination office shall not be allowed to pass outwards through the gates of the customs enclosures unless a gate pass (*izin ifrag*) authorising their removal is produced, but shall be seized and sent to the examination office for examination.

And may be detained if Office closed

(2) If any such package is examined when the customs offices are closed and is found to contain goods subject to import duty or contraband goods, it may be retained in the customs station at the owner's sole risk until the offices are next opened.

Fees on Travellers' Baggage

In addition to import duties on goods brought in by travellers the following fees may be taken : declaration fee, 10 milliemes ; portorage fee, 5 to 50 milliemes for each package, according to dimensions.

The Director may from time to time settle the scale of portorage fees, which shall be kept posted up in clear and legible characters in English and Arabic in the examination office.

Portorage fees shall be chargeable only on packages carried by customs porters.

APPENDIX C

I

COMMENCING in the month of May 1914, a new schedule of rates for the portorage of goods at Suakin came into force. All goods are now divided into four definite categories, and different rates prevail for imports and exports.

The following is the new schedule :

	Imports.	Exports.
CATEGORY A		
All ordinary goods, per ton of 1000 kilos.	60 mms.	50 mms.
CATEGORY B		
Loose goods, such as coal, coke, patent fuel in bulk, per ton of 1000 kilos. .	40 "	50 "
CATEGORY C		
Tiles, bricks, paving blocks, stone in bulk, per ton of 1000 kilos. . .	50 "	50 "
CATEGORY D		
Timber of all sorts, per cubic foot .	3 "	3 "

Above charges are for the following works done within customs precincts :

(a) Transport of goods from place where landed to store or other part of the customs enclosure.

(b) Transport for customs examination, including weighing, measuring, and counting, if necessary.

(c) Stacking or moving goods.

(d) Carrying from inside store or enclosure to customs gate.

These charges are not inclusive, and do not allow for the opening of goods for examination by the customs officials nor for their repacking. The rates are also only in force during customs hours, and for any portorage outside customs hours an additional charge of 3 p.t. per ton is made.

II

SUDAN GOVERNMENT RAILWAYS

SCHEDULE OF RATES TO BE CHARGED TO GENERAL PUBLIC AT
PORT SUDAN QUAYS FOR PORTERAGE, STORAGE, ETC., AND
WHICH CAME INTO EFFECT UPON APRIL 1, 1914.

1. PORTERAGE—

Imports

(a) From ships' slings or from quays to sheds or stacking grounds, including all operations	Per ton. 7 p.t.
(b) Ditto for timber	10 "
(c) Direct delivery of cargo from slings to ground, including sorting	3 "

Exports

(a) Conveying goods from stacking ground anywhere in inner or outer enclosure or from sheds to ship's berth ready for shipment and attaching to slings	6 "
(b) Direct delivery of cargo	3 "
(c) Removing cargo shut out from shipment back to shed or stacking ground	6 "

Miscellaneous

Extra for handling goods out of customs hours at request of owner or his agent.	3 "
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2. STORAGE CHARGES FOR IMPORTS—

After eight days' free storage all goods will be charged :

- 5 p.t. per ton per diem for the first 10 days.
- 10 p.t. per ton per diem for the second 10 days.
- 20 p.t. per ton per diem afterwards.

3. WAREHOUSE RENTS FOR EXPORTS—

	Per ton or part of ton per 11 days or less.
Class A (Goods in classes 1 and 2 in General Goods Classification)	35 mms.
Class B (Goods in classes 3 and 4 in General Goods Classification)	25 "
Class C (Goods in classes 5, 6, and 7 in General Goods Classification)	20 "
With the following exceptions:	
Ivory and feathers—special rate	100 "
Cotton—ginned or unginned—Class A	35 "
Hides	35 "
Maize and dura	10 "

4. GROUND RENT OF EXPORTS—

	<i>Outer Enclosure</i>	Per 10 days per ton.
Class A		30 mms.
Class B		20 „
Class C		15 „
Special Rate		10 „

Quays

10 mms. per ton per day (after free period of 48 hours). (*Cargo outshipped* will be allowed free period of 24 hours from time of departure of vessel.)

5. SHIPPING OVERTIME CHARGES—

Imports

- (a) For landing goods on working days during other than working hours. (Such goods will be received into store shed up to sunset only.) Per steamer 500 mms.
- (b) For landing goods on Sundays and holidays including reception into stores:
 - (i.) For work not exceeding 5 hours . . . £1.000
 - (ii.) For work exceeding 5 hours and not exceeding 8 hours . . . £2.000

Exports

Supervision of portorage out of working hours, 200 milliemmes per hour with a minimum of 500 milliemmes.

Sufficient notice must be given in such cases to enable goods at the option of the railway to be removed from the export sheds during working hours in readiness for loading, otherwise exporter is liable to an additional handling charge of 3 p.t. per ton.

All charges for the service of porters supplied by the railway are collected by the railway in accordance with the foregoing schedules, and no additional payments need be made to the porters direct. Nevertheless, these latter expect and even importune passengers, who rarely refuse them an extra gratuity.

APPENDIX D

KHARTOUM PROVINCE POPULATION

The Last (1913) Census

	Men.	Women.	Children.
<i>Khartoum City—</i>			
Sudanis	7,308	8,903	6,212
Abyssinians, Egyptians, and			
Indians	5,881	1,163	1,601
Europeans	771	172	171
	13,960	10,238	7,984
<i>Khartoum North—</i>			
Sudanis	9,771	11,826	7,118
Abyssinians, Egyptians, and			
Indians	634	503	503
Europeans	232	54	101
	10,637	12,383	7,722
<i>Omdurman—</i>			
Sudanis	19,131	13,422	20,397
Abyssinians, Egyptians, and			
Indians	134	487	314
Europeans	308	212	418
	19,573	14,121	21,129
<i>Geili—</i>			
Sudanis	7,562	8,254	4,580
Abyssinians, Egyptians, and			
Indians	9	3	1
Europeans	8	2	..
	7,579	8,259	4,581
	51,749	45,001	41,416

Total of men, women, and children of all nationalities=138,166.

APPENDIX E

MEASURES AND WEIGHTS

THERE are many perplexing standards now in common use in the Sudan. Some of these standards differ greatly in different towns and districts. These variations facilitate and encourage fraud by crafty traders and others who confuse and cheat ignorant natives, especially in weights and measures of the food and other staple products.

The Metric system is undoubtedly the best for a uniform standard. It has long been used in Egypt and is now the standard of most countries of the world. Ultimately it is bound to become the universal standard.

The natives of the Sudan, like all primitive peoples, use their "ten fingers" as a standard, and reckon in decimals; so that the Metric system, which is based on decimals, is the easiest system for them to comprehend. When the Egyptian and Sudan decimal system of money was introduced it was readily understood and accepted.

SUDAN MEASURES AND WEIGHTS

(With equivalents in British and metric measures)

LENGTH

Diraa (or pik) "baladi" (=24 kirats) =22.83 ins. =.58 metres (for ordinary measure). A Sudan diraa=length from elbow to middle finger tip of left arm plus breadth of right hand = about 57 centimetres =22½ ins.

Hindaia (cloth) =65.82 cms. =25.88 ins.

Hindassa and pik Stambuli =practically 2 ft. 2 ins. =.66 metre.

Kadam =1 ft. ; busa =1 in. (little used).

Kassaba =11 ft. 7.76 ins. =3.55 metres.

Pik mehmarı =29.53 ins. =.75 metre (architecture, etc.).

Saa (hour) =anything between 2½ and 4 miles.

Sudan river-land.—Measured lineally (not superficially) along the river by the "habl" (habl=usually 8 diraa, but may be anything from 2 to 10 diraa). Land-measurer's chain is 20 metres in length and has 100 links.

HEIGHT OR DEPTH

Ragil=(approx.) 5 ft. 6 ins., *i.e.* the distance from finger tips to finger tips with the arms held out horizontally. This is invariably used for measuring wells.

SQUARE MEASURE

Feddân = 333.3 square kassabas = 24 kirats kamel = 72 habbahs = 144 daneks = 576 sahms = 13.824 sohts = 1.038 acres = 4200 sq. metres = 70.88 yds. sq. = 5024 sq. yds.

Kirat = 209.35 sq. yds. = 175 sq. metres.

Sahm = 8.72 sq. yds. = 7.3 sq. metres.

Square kassaba = 15.07 sq. yds. = 12.60 sq. metres.

Square pik mehmari = 6.43 sq. ft. = .562 sq. metre.

Sudan rain-land.—Measured superficially by the "gada" = about $5\frac{1}{2}$ feddân—sides = 64 ud of 4 diraa each.

In Kordofan, measured superficially by the Mukhammas, which measures 20 uds by 30 uds, each ud being 4 diraa.

WEIGHT

Ardeb (for dura and other food cereals). The Ardeb varies considerably according to locality, and the variations cause much confusion. An Ardeb of dura in Khartoum = 12 kela = 24 rub (of 4 melwa) = 96 melwa (of $3\frac{1}{2}$ rotls) = 300 rotls. In Sennar Province the Ardeb = 24 rubas of 20 rotls each = 480 rotls. In Kordofan Province the Ardeb = 2 reikas = 420 rotls. Each reika = 30 midds of 7 rotls each = 210 rotls, etc., etc.

Dirhem = 16 kirats = 48.15 grs. troy = 1.76 drs. = 11 oz. = 3.12 grs. 9 dirhems = 1 oz. practically.

Girba (rough liquid measure) = 14.67 galls. = .66 cubic metre = 40 cm. cubed.

Haml or heml (camel-load) = 200 okes = 550.27 lb. (Egypt). 250 kgrs. (300 lb.) for Bedouin or Western camels.

Hemla = 66 okes = 165.08 lb. = 75 kilograms.

Kantar = 8 tumna = 100 rotls = 36 okes = 99.05 lb. = 44.93 kilograms.

Kantar (Alexandria) = 112 okes = 308.15 lb. = 140 kilograms.

Cotton when bought or sold by the natives is invariably quoted per kantar, unginned, of 100 or 105 rotls, when ginned or pressed, by the ordinary kantar of 99 rotls. At Tokar, a kantar of cotton = 100 rotls, etc.

Midd (Berber) = $2\frac{2}{3}$ tumna (of 3 tasa) = 8 tasa (of $1\frac{1}{3}$ rotls) = $10\frac{2}{3}$ rotls.

Midd of grain = $\frac{1}{2}$ keila = $12\frac{1}{2}$ rotls.

Mithkal (for precious metals and stones) = $1\frac{1}{2}$ dirhems = 24 kirats = 72.22 grs. = 4.68 grams.

Oke (ugga) = 400 dirhems = 2.77 rotls = 2.19 pints = 2.75 lb. = 1.25 kilograms.

Rotl = 12 ukia = 144 dirhems = .99 lb. = 450 grams = .79 pint.

Rotl (Abyssinian) = 10 mokha = 120 dirhems = .68 lb.

Ruba (of dates) = about 10 lb. 30 rubas = one camel-load.

Tonolata (French tonne) = 800 okes = 2204.62 lb. = 1000 kilos = 10 quintaux.

Tonolata Inglisi (ton) = 814 okes = 1016.06 kilos = about $7\frac{1}{2}$ ardebs (of wheat).

Ukia = 12 dirhems = 1.32 oz. = .066 pint = 37.44 grams.

AVERAGE MEASUREMENT OF 50 KANTARS OF WOOD

South of Khartoum: 8 ft. 6 ins. \times 4 ft. 6 ins. \times 4 ft. 6 ins. = 50 kantars, or, roughly, 1 cubic metre = 10 kantars. (If wood is thin and dry, 1 cubic metre = $9\frac{1}{2}$ kantars.)

ABYSSINIAN MEASURES AND WEIGHTS

LENGTH

Tat = breadth of the index finger.

Gat = breadth of the four fingers placed flat.

Sinzer = span from thumb to tip of second finger.

Kend = length of arm from elbow to tip of second finger.

HEIGHT OR DEPTH

Yascu kumat = height of man (calculated by measuring from finger tip to finger tip with arms extended to full extent in line with the shoulders). This measure is invariably used for excavations, wells, etc. Equivalent to the Sudan "ragil," i.e. about 5 ft. 6 ins.

WEIGHT

Kasm = $\frac{1}{8}$ of wogiet.

Mutagall = $\frac{1}{4}$ of wogiet.

Alada = $\frac{1}{2}$ of wogiet.

Wogiet = (in the Arab country—Sayo and Gedami) stone-weight = 10 dirhems = 481.5 grains = 31.2 grams.

The wogiet in Nejo and Lekempti = dollar weight = 9 dirhems = 433.35 grains = 28.08 grams (*i.e.* a difference of $2\frac{1}{2}$ Maria Theresa dollars in the price of gold per ounce).

Wogiet (for civet) = one Maria Theresa dollar's weight = 9 dirhems = 433.35 grains = 28.08 grams.

In Khartoum the wogiet is worth 10 dirhems and 10 wogiet to the rotl, hence a loss to Abyssinian buyers.

Farasula (for coffee and wax) = 50 Natr = 600 dollars weight = 5400 dirhems = $37\frac{1}{2}$ rotls = 37.125 lb. = 16.85 kilos.

Four farasulas = $1\frac{1}{2}$ kantars = 150 rotls = 148.5 lb. = 67.4 kilos.

Sixty farasulas = 1 metric ton = 1000 kilos = 2226 rotls = 2204 lb.
Subdivisions are not used in the Sayo and Gorei districts for coffee and wax.

Farasula (for ivory). In Burei and Gorei districts the ordinary farasula is used. In Gedami and Sayo districts the farasula = 480 dollars weight = 4320 dirhems = 30 rotls = 29.7 lb. = 13.478 kilos. •

In calculating tusks weighing from 12 to 6 rotls only, the farasula is taken as 15 rotls and 30 dollars are added on to the price of the farasula. Hence the large profit on small tusks.

Farasula (for rubber) = 640 dollars weight = 5760 dirhems = 40 rotls = 39.6 lb. = 17.972 kilograms.

INDEX

- Abderrahman Wad en Njumi, 414
 Abu Deleig, historical interest of, 427
 Abu Klea, battle of, 1885, 260
 Abyssinia, slavery in, 218; boundary line, 458; British and European record in, 517-18; frontier delimitation agreed, 1902, 518; smuggling and gun-running over borders of, 517-19
 Adis Ababa, Convention of, 517-18
 Administration, Anglo-Egyptian, effect on Sudan, 33, 35, 47; administrative reforms, 34; composition and *personnel*, 38-41; permanent boards, 39-40; changes in scope and character of, 40-41; working of, 49; changes in *personnel*, 57-8; cost of, 222; and slavery, 216-18; encouragement of foreign capital and private enterprise, 292-3; and tourists, 402; tact of, repaid by loyalty in 1914, 454-5
 Adowa, disaster to Italian army at, 1896, 27; battle of, 518
 Agreements, Franco-Congolese, 1894, 3; International (Anglo-French), 1899, 3; Brussels, 1906, 3, 487; of 1889 between British Government and former Khedive of Egypt, 501
 Agriculture, Department of, 328; suggestions *re* cotton-planting, 343
 Agriculture, local pests and, 284-5, 327; future of, 300; ancient methods of, 326; modern methods, 327; advance in value and quantity of crops, 328
 Ali Dinar, revolt of, 441
 Al-Wathik Billah, Caliph, 215
 Anglo-Indian passengers, 181-4
 Animals tax, 94, 531
 Anthropology, importance of, to administrators, 209
 Arabi Pasha, rebellion of, 1882, 26
 Arabs, dominance of, 210-11; musical ability of, 214-15; slave-holders, 217; as traders in ancient days, 268; modern times, 272-3; customs, 394
 Archaeology, importance of, 248-51, 256-7
 Archibald, Major R. G., D.S.O., 138
 Ardeb, Sudan cereal measure of weight, 166 *n.*, 547
 Area, physical, 6; of administrative Sudan, 36
 Argo, natives' lack of industry and enterprise, 435
 Arms and ammunition, regulations, 151; traffic in, from Abyssinia, 518-19
 Arms and armour, native, 405-6
 Army of Anglo-Egyptian Sudan, 141-152; improvements effected in, 143
 Army, Egyptian, reform of, 65
 Asser, General, 351
 Assessment, areas, board, and assessor, 98
 Atbara, battle of, 31, 501
 Atbara, expansion of, 423; sanitary regulations of, 423; church at, 424
 Atmospheric effects, 15
 Baerlein, Henry, *The Singing Caravan*, 214
 Bahr-el-Ghazal Province, natural features and climate, 407, 410; area and population, 411; quarrelsome tribes of, 411; proposed railway, 412; roads, 413; prospects, 413
 Baker, Sir Samuel, 216, 294-5, 464, 489, 495, 530; *Ismailia*, 407
 Balfour, Dr. Andrew, 134, 137, 162
 Bankruptcy Laws and their defects, 81; cause of commercial failures, 80
 Banks, 277-9
 Bara, 481
 Barbers, sanitary, 129
 Baring, Sir Evelyn, 25. *See* Cromer
 Beam, Dr. William, 137 *n.*, 196
 Beir tribe, the subjection of, 490
 Belgium, territory of, in Sudan, 3
 Berber Province, administration of, 413-14; under Mahdi rule, 414-15; betrayal to Mahdists, 414-15; old and new towns of, 415-16; population,

- 416; trade in sheep and other exports, 416-19; irrigable land and crops, 416-19; cattle trade and other industries, 419; towns of, 420-24
- Bernard, Sir E. E., K.C.M.G., 75, 118
- Birth- and deaths registration, 127
- Blue Nile, sources of, 304
- Blue Nile Province, area and population, 425; cattle trade, 425; economic expansion, 426; towns of, 426-8; rich districts of Managil and Meselemia, 428-9; property of, 429
- Blue Nile scheme, Sudan irrigation project, 305-12
- Blyth, Dr. Popham, 245
- Bonvini, Father Alois, 240
- Book of Songs*, the, 214-15
- Book-keeping, commercial, encouragement of, 99
- Bor (or Moding), disagreeableness of, 494-5
- Boy Scouts, Lieut. Sanford's Arab troop, 454
- Brevident, Father Charles Xavierius de, S.J., 239
- Britain, intervention in Sudan, 23; Government policy in Sudan, 24, 27; Home Government's disastrous economies in Sudan, 29
- Brown, A. F., and forest protection, 349
- Bruce, discoverer of source of Blue Nile, 304
- Budget, Sudan, deficits, 108; cessation of Egypt's contribution to, 112; accounts, 1899-1913, 114-16
- Burleigh, Bennett, quoted, 380-81
- Butler, A. L., 397
- Cables, failure and interruption of, 74; overhead crossings to replace, 74
- Cadets, recruiting, selection, and training of, 144-5
- Camels, riding, 357-9, 382; principal means of transport, 380; some opinions of, 380-81, 386; appearance and habits and nature of, 381-2, 384; cost of hiring, 383; contracts, 384-5; branding marks of, 385; she-camels and other varieties, 385; speed and endurance of, 386; tracks, 387-8
- Capes, J. L., 325
- Cassel, Sir Ernest, 162
- Cattle trade, growth of, 333-5; hides and skins exports, 335
- Cercals, profitable cultivation of, 329
- Central Economic Board (Commercial Intelligence Branch), success of, 75; efficient services of, 76; valuable work of, 270-71
- Chalmers, Dr. Albert J., 137-8
- Church of England, missionary work in Sudan, 241-5; educational work of, 245-6
- Church Missionary Society, campaign and activities of, 241-2, 246; station at Malek, 490; station at Tombé, 496
- Civil Service (Sudan), selection of candidates for, 420; rules and regulations of, 43; examinations, Arabic and other requirements for, 43-4; grants and allowances, 44-5; class of official, pay, etc., 45; advantages of, 46
- Climate, 207, 475-6
- Coffee, Abyssinian and Kassala, 458
- Comboni, Dr., 240
- Commerce in ancient Egypt and Sudan, 268-9; crisis in 1911, 269; modern developments, 270-71; foreign enterprise, 271-2; dishonesty in and law, 273; opportunities for trade, 274-6, 351-2; chief products of, 275-7, 283-4, 329-30, 335-6, 338, 350-51, 428, 444, 484, 493
- Conditions, general, in Sudan, 1889-90, 32; improvements under British rule, 35
- Conscription, military, in Sudan, 143
- Convention of 1899, 37-8
- Convict-labour, importation of, from Egypt, 219, 223
- Cory, H. T., 325
- Cotton, an important Sudan product, 277; growing in Gezira, 310-11, 452; ancient cultivation of, 336; requirements for successful cultivation of, 337-8; development and progress of cotton industry, 338-40; sales of, 341-2; planting, 343; varieties of, 343-4, 418; and experiments, 344 n., 345; condition of ordinance, 345; taxes, 346; seed, 346; sowing and picking, 347
- Cotton-growing industry, effect on labour, 222-3
- Courts, civil, 77; Mohammedan, 81; of Appeal, 77
- Cremation a custom in Meroë, 300 B.C., 249
- Crime and criminals, 81, 89; long and short term prisoners, 87
- Criminals, juvenile, 85; Government assistance to, 86
- Crémer, Lord, Sudan Report, 1906, quoted, 57; capable dealing with difficulties of Sudan Government, 118; and Gordon College, 162; encouragement of missions, 241, 246; encouragement of thrift among natives, 279⁴; and Nile irrigation, 328

- Crowfoot, J W, 168
 Currie, Sir James, K B E, C M G, 161, 163, 166-8
 Customs dues, receipts from and cost of administration, 102-3, increasing revenues, 121
 Czernay, M Frank, discovery of Sudanese gold deposits, 286-7, early death of, 287

 Darfur, province of, 5, area, population, and position, 440, 441, slave trade in, 441, history and conquest of, 5, 441, inhabitants, 442, 443, transport and its danger, 443, railway project in, 443, products and prospects, 444
 Date tax, 94
 Dates, Sudan cultivation of, 330, 432
 Davie, W A, improvements in cotton pruning, 342
 Debba, important trade centre under old regime, 436
 Desert, the, 75
 Dickinson, Lieut Colonel E A, 351, valuable services as Governor of Blue Nile Province, 426
 Diseases, contagious, 127, preventive measures, 128, common, 127
 Domestic servant-, tourists' disorganising effect on, 220, shortage of satisfactory, 264-6, native divics and servants, laziness of, 370-71, 374-5, improvement in, 473
 Dongola province and town, orderly residents of, 86, construction campaign, 170, Kcaah, 193, history of, 429-30, 436, old and new town, 430-31, good maintenance of roads, 432, railways in, 432, irrigation, agriculture, and trade, 431-2, other important towns in, 432-8, Government improvements in, 434-5
 Dufferin, Lord, disclaims responsibility for Hicks Expedition, 23
 Dupuis, C E, 306, 314
 Dura, a Sudan commercial asset, 329
 Dust and sand, Sudan, 476

 Education in Sudan, 160-68
 Egypt, misrule in Sudan, 16, 19, obstructionist methods of officials, 22; Arabi rebellion in, 26, control of Sudan ended, 37; army reform in, 65, trade in, 103; financial advisers to, 107
 Egypt, Lower, irrigation and drainage of, 317-25
 El Damer, principal town and seat of Government of Berber Province, 421, university at, 421, ferries at, 422
 El Ducim, loss of trade and population, 427, re-idence of Province Governor, 530
 El Gef, suburb of Suakin, 505
 El Obeid, fall of, 1883, 260, old and new, 482, historical associations, 482-3, wells and scarcity of water at 482, centre of gum trade, 484, 486
 El Odaya, 482
 Elephants, destruction of, by natives, 395-6, in Mongalla, 492-3
 Epidemics, efficiency of medical service in preventing, 127, 447-8
 Eritrea, Italian colony at, 3
 Erkowit, summer headquarters of Government officials, 508
 Ethiopia, Empire of, early religion of, 239-40, archaeological discoveries in history of, 256-7
 Ethnological transformations, 2
 Evans, Sir Arthur, 249
 Expeditions of Mohammed Ali, 1805, 16, of Ismail Pasha, 1869, 17, British, punitive and other, 17, 18, 59
 Explore-, early, 6, 7
 Exports, 103

 "Fashoda affair," the, 523-4
 Faure, Felix, 523
 Finances, Sudan, 106-17, provincial, 119, conditions anterior to British conquest, 107, relations between Egypt and Sudan, 111, position of under new arrangements, 112, 120, after discontinuance of Egyptian financial assistance, 117
 Fires, prairie and other, danger of, 457
 Fishing and yachting at Port Sudan and on Red Sea littoral, 207
 Fleet, Sudan Government, 187
 Flogging, its practice among Sudanese natives, 213-14
 Foreign capital, Government and encouragement of, 292-3
 Forests, destruction of, 348, 349, protection, 349, 350, area of, 349, products, 350-51
 France and Britain, opposing interests in Abyssinia, 517-18, 523-4
 French Sudan, 2, 3
 Frontier provinces, necessity for official watchfulness, 516, 518, military patrols, 519
 Frontiers, Sudanese, 3, life on, 66, posts, 104; delimitation of between Abyssinia and Anglo-Egyptian Sudan, 518
 Ful *sudan*, ground- or earth-nuts, cultivation of, 330
 Fung tribe, power of, broken, 514

- Gallabat, historical associations, 458
 Game, abundance of, at Tomat, Kassa, 459, in Mongalla, 492, in Sennar, 510
 Game preservation department and its work, 397, 398, 399
 Gaistang, Professor John, archaeological research work at Meroe, 248-9
 Garstin, Sir William, quoted, 300, 305, 306, 308, 315, 320, 328
 Gebbie, F St John, 325
 Gebel-el-Auli claim, cost of, 317-18
 Gebel Moya, Mr Wellcome's research work at, 251-5
 Gedarf, population and history, 455, picturesque appearance, 455-6, modern developments, 456, an important military station, 457
 Gelil village, inhabitants, 461
 Geographical characteristics, 1
 George V, King, and Queen Mary, visit to Sudan (1912), 260
 Gessa, Romolo, 22
 Gezua Plain, soil and climate of, 299, area fit for cultivation, 310, 311, and cotton cultivation, 310-11, 340
 Ghafis (night watchmen), 154
 Giraffes in Kordofan, 482
 Gordon, General Charles George, arrival at Khartoum, 1874, 20-21, long and brilliant service in various countries, 25 opinions on Sudan, 33 connection with Sudan, 63 *seq.*, as financier, 107, and evangelisation of the Sudan, 241, tours in Sudan, 359, loss of baggage in Berber, 414, despatch of steamer to Khartoum, 420, death of, 467, statue of, 469, visit to Sennar, 510-11
 Gordon College, Khartoum, 162, 210, 285, 503
 Government, Sudan, changes in scope and character of, 40-41, departments, 71-84, enterprise, 115, 'Departments and Services' and 'Province', 121, departmental enterprise, 199, assistance to natives, 120, monopolies, 123, encouragement of thrift among natives, 279
 Governor-General of Sudan, history of some, 35, 69
 Goz Abu Guma, collecting station for gum, 528
 Gradients, railway, 172
 Graham, Sir Gerald, expedition to relieve Tokar, 177, 507
 Great Britain, share of Sudan trade, 102
 Greek Church, missionary work of, 246
 Greeks as traders, 483, 530
 Griffith, Professor F L, discoveries at Napata, 251
 Gum, important product of Sudan, 280, 480-81, 484, 510, growth of trade, 280, Government royalty on, 280-281, the market, 281, regulation, etc., of gum trade, 282-3, export of, 282-3, merchants and conduct of gum trade, 484-5
 Gwynne, Dr L H, afterwards Bishop, 240, 241, 243, career, 244, 245
 Halfa Province, area and physical features, 445, population and trade, 445-6
 Handub, battle of, 1888, 260
 Harrington, Sir John Lane, 517-18
Hashish, contraband trade in, 105
 Hicks, Colonel W, 17
 Hicks, General, unfortunate fate of, 483-4
 Hill, Major Sir Henry M, Governor of Berber Province, 221
 Historical Medical Museum, Wigmore Street, London, 139
 Holidays, official and Mohammedan Sudanese, 477-8
 Horses, Abyssinian and Dongolawi, 485
 Hospitals, 129, lack of accommodation in, 129, patients, 130-1, records of, 215
 Hotels, difficulties of conducting, 472-3, history of three most important, 473-4
 "House of Boulders," the, 238
 Hunt, Leigh, failure in cotton-growing, 339
 Hussein, Khalifeh, 413-14
 Ibn Khaldun, 214
 Identification Bureau, success of, 86
 Imports, exports and re-exports, 102; principal imports, 103, into Port Sudan, 105
 Infant mortality, 127
 Inspectors, grades, duties, etc., of, 48
 International Agreement (Anglo-French), 3
 Investment, opportunities for, 121
 Irrigation, importance of, 299, 300, 301, 302, 303, 337-8, schemes, 305-25; methods of, 331-2, 417-18; system in province of Berber, 416-17; system in province of Dongola, 431
 Irrigation service, work of, 315
 Ismail Ayoub Pasha, 294-5 and *n.*
 Ismail Pasha, 17
 Ismail, Kik'dive, 407, 413, 437, 463

- Italian Sudan, the, 3
 Italy, danger of proposed cession of Sudanese territory to, 3; disaster to army at Adowa, 27; protectorate agreement with Abyssinia, 1889, 518
 Ivory, export of, 396, 493
- Jackson, Captain, 359
 Jackson, Sir H. W., 350-51, 359, 432-3, 524
 Justice, department of, 77-82
- Kamlin position, 427-8
 Kassala Province, railway line, 176-9; population and area, 448; advantages and disadvantages, 448, 456; cattle and live-stock trade, 448-9; geographical features, 449-57; historical associations, 450-53; cotton industry in, 452; places of interest in, 458-9; big game in, 459
 Kassala, town, model gaol at, 87; old Italian fortress at, 451-2; transference from Italy to Anglo-Egyptian Sudan, 450, 457; Technical School at, 453-4; population and cleanliness of modern town, 455
 Kawa, boat-building industry and agriculture at, 523
 Keane, A. H., *North African Ethnology*, 209
 Kerin, 268
 Kerma, remarkable ruins at, 437
 Khalifa, escape of, after Omdurman, 31; death of, 31; combating influence of, 454
 Khandak, ancient remains at, 437-8; poverty and industries of inhabitants, 438
 Khartoum, revenues, 104; military school at, 144; British garrison at, 148; Central Labour Bureau at, 219-20; cathedral, 244; fall of, 260, 420; season (official and social) at, 260-62; sport and amusements at, 262-4, 403; land values at, 353-5; famous march to relief of, 1885, 438-9; trade and administrative centre, 461, 463; population, 463; early commerce in, 464; early descriptions of, 464-5; beautiful gardens of modern city, 465-7, palace, history of, 467-8; the modern city, 468-70, 475; water supply, 471; drainage projects, 471; sanitation, 471-2; housing and hotel accommodation, 472-4; building in, 474; climate, 475-6; Nile embankment, 476-7; mosquitoes in, 478-9; health reputation, 479
- Khartoum Province, area, population, topography, and boundaries, 460-61
 Khasha, irrigation syphon at, 323
 Khatmia mosque, destruction and restoration of, 454
 Khedive, position of, 27
 Khedivial Mail Service, 186
 Kitchener, Earl, despatch to Sudan in 1896, 28-9; strong hand in Sudan, 29; *Sirdar* and Governor-General, 65; great career, 65-6; ability in dealing with Sudan problems, 118; policy, 147; interest in Wellcome's researches, 238, 257; reconquest of Sudan and Fashoda, 523; other references, 306-7, 310, 316, 318, 320, 350, 403, 415-16, 436, 453, 462-3, 468
 Knight, E. M., *Letters from the Sudan*, 393
 Kodok, 523-5
 Kordofan Province, area, and physical features, 480; agriculture in, 481; population, 481; villages destroyed by Khalifa Abdulla, 481; giraffes, 482; production of gum arabic, 484; trade of, 484-5
 Korti, headquarters for 1885 expedition to relieve Khartoum, 438
 Kosti, a centre of commerce, 528; railway bridge near, 529
- Laboratories, the Wellcome, 131-7, 165
 Labour, native and Egyptian, 172; skilled and unskilled, shortage of, 218-19, 221, importation of, 220, 221, 222, 223, wage, 219, 221-3; and cotton-growing, 337
 Lado Enclave, exchange with Belgium, 3, 488
 Lancashire, manufacturers' dependence on Egyptian cotton, 338
 Land (or "Ushur") Tax, 94; regulations for prevention of speculation in, 353; laws, probable amendment of, 356, the original, 355-6; values, 474-5
 Lakes, Great, regulation of, 319, 321, 322, 323, 325
 Leave, importance of, 54
 Legarde, M., Governor of French Somaliland, 517
 Leopold II., King of Belgium, agreement with, 3, 488
 Letter boxes, private, 72
 Linseed, an important Sudan product, 275-6
 Litigation, natives' love of, 79
 Liverpool, University of, and Meröë excavations, 248

- M'Clure, H H, 306, 316
 MacDonald, Sir Murdoch, 306-8, 309, 315, 316, 318, 320
 M'Ilvor, Professor, archaeological research work at Halta, 251
 Mahdi, rise of the, 23; growing power of, 27-8, power of broken, 30, final overthrow (1898-99), 216, misrule, 295, 414-15, revolt, 430, destruction of railways by, 437, tomb of, 462
 Mahmoud, capture of, 416
 Mails, 72, European, delivery of, 72-3
 Malakal, growing importance of, 522-3
 Maman, discoveries at, 257-9
 Mamurias, or divisions of provinces, table of, 408-10
 Mamurs, and sub-Mamurs, 49
 Marchand, Colonel (afterwards General) Jean Baptiste, and Fashoda, 523-4, record in European War (1914-19), 524, letter to Colonel Jackson quoted, 525
 Mather, Sir Wm, 162-3, 516
 Medical Department and Director-General of, 126
 Military administration, finance of, 106
 Mills, the Hon Charles T, 162
 Minerals, 285-7
 Moghren Quays, 104
 Mohammed Ali, 16, 17
 Mohammedan rule, 50, Court, 79, 81
 Money orders, 72
 Mongalla Province, area and scenery, 487, disease and rinderpest in, 487-8, inhabitants, 489-90, cattle in, 490, lack of education, 490, towns of, 491-2, 493-6, game in, 492-3, agricultural products, 493
 Mongalla, town, streets, and buildings, 491-3, climatic conditions, 492, military establishment at, 493
 Monopolies, Government, 123
 More, R C, 472
 Mosques and churches in the Sudan, 246-7
 Mountains, 7, 13
 Mecca, annual pilgrimages to, 247
 Medicine, Arab proficiency in, 215
 Menelik, King of Abyssinia, 517-18
 Merissa, drinking, degrading effects of, 231-2
 Meroe, excavations, etc., at, 248-9; ancient culture at, 249-50, ancient Roman emissaries to, 294, old town, 432, new town, 433, hospital and sanitary arrangements, 433-5
 Metemneh, importance in 1884 expeditionary operations, 422, massacre of Jaalins at, 123
 Mineral deposits, 285-7, evidence of mines in ancient Egypt, 287, 289, 291, modern prospecting, 287-8, 291, syndicates and concessions, 288-9
 Missions, present day in the Sudan, 241
 Mosquitoes and *numili*, 367-8, importance of mosquito-nets—the 'Simpsonette,' 368, 416, 478-9
 Music and dancing, Sudanese practice of, 214-15
 Mustafa Yawir, 430
 Mutilation, the practice of, among native races, 212-14
 Nahud, inhabitants, 484, important trade centre, 485
 Napier, Sir Robert, of Magdala, expedition against Abyssinia, 517
 Nasser, garrison at, 522
 Native disturbances, official dealing with, 61-2
 Native races, origin and division of, 208-11, under Turkish rule, 211, character, 211, 327, 375, 411, 522, dialects, 211, customs, 212-14, 394, 395, 411, and Savings Banks, 278-9, favourably compared with natives of South and Central America, 377, arms and armour, 405, 406, lack of industry and enterprise, 435-6, troublesome Lokoias and Beirs in Mongalla, 489
 Nile, sources of, 6, failure of, in 1911-1913, 119, steamers, 187-90, barges in tow on, 195, class of passengers and traffic on, 195, importance of in early commerce, 268-9, irrigation projects, 300, 302, importance of, 304-5
 Notes for Travellers and Sportsmen in the Sudan, 397
 Nuba Mountains Province, area, population, and physical features, 496, increasing prosperity of inhabitants, 496-7, towns of, 497
 Nubar Pasha, 24
 Oases, 13
 Officials, class of, 45, Moslem, 50-51, gifts to, 51-3, non-pensioned, married and single, 55, zeal of, 57, responsibilities of, 59; tours of, 358-9
 Ohrwalder, Father Joseph, *Ten Years of Captivity in the Mahdi's Camp*, 240-41; sufferings of and companions, 241, 386
 Omdas, 53
 Omdurman, battle of, 31, 461, land values at, 354, historical associa-

- tions, 461-2, state of under Mahdi rule, 462-3, modern improvements, 463
- Osman Digna, dark and cruel career of, 89-91, in Wady Halfa Gaoi, 90-91
- Papyrus, ancient Egyptian variety and modern compared, 296-7
- Peel, Sir Robert, 279
- Penitentiaries, Central and Local, 83, provincial, 86
- Pensions, official, 53
- Physical features, 7
- Pilgrim traffic, 178
- Pioneers, difficulties of, 172
- Plains of Sudan, 7
- Police, Magistrates' Court, 81, early Egyptian, 153, reforms, 154, European Superintendent, 155, improvement and reorganisation of, 155, selection of candidates for, 155-6, class of man appointed, 156, period of service, 156
- Poncet, Dr, 285-6, *A Voyage to Ethiopia* quoted, 239-40, 386
- Port Sudan Route, advantages of, 186, comparison with Suakin, 201, deep water channel at harbour of, 202, harbour lights and beacons at, 202-3; new town and scenic attractions of, 206, official buildings at, 206-7, climate, 207, shipping at, 207, land values at, 355
- Posts, 71, parcels, 72, continuity of service, 73
- Prisons, 87
- Provinces, functions and responsibility of Governors of, 46, finances, 119, and divisions with area and populations, 407-9
- Pruner Bey, *Memoire sur les Nègres*, 209
- Puckler-Muskau, Prince, quoted, 464-465
- Punitive expeditions, 59
- Railways, features of present, 171-9, 432, 447
- Railways, light, 174, probable extensions, 174-5
- Rainfall, 6
- Rains and winds, 11, 360, 426
- Rates, 103
- Ravenscroft, Major, quoted, 216
- Red Sea Province, area, popularity, and commercial importance of, 498, prosperity of inhabitants, 498-9; principal towns of, 499-508, Arab and other tribes, 505-6
- Recidivists, 83
- Rejaf, historical interest, 495
- Rejif Mountain, 495
- Reisner, Dr G. A., archaeological research work, 250-51, 436, interest in Mr Wellcome's work, 256
- Renk, Government school at, 521, position, climate, and history, 521-2
- Repression of slave-trade ("Horneh"), Government Department, 217
- Revelstoke, Lord, 162
- Revenue, 1898, 109, annual contributions since 1899, 111, 1913, 114, and expenditure, 120
- Rinderpest, 488
- Rivers, 7, 9
- Roads, 390, 392
- Rodd, Sir James Rennell, 517
- Roman Catholic Mission to Sudan, 239-242
- Roseires, military garrison and Slave Repression Department at, 513
- Rothschild, Lord, 162
- Rubber plantation, slow progress of, 350-51
- Rufaa, 429
- Russcogger, J., quoted, 287-8
- Said Ali Moghani, Sir, KCMG, loyalty to administration, 455
- Salisbury, Lord, 1898, 523
- Sand and sandstorms, 11
- Saoleil, experimental plantation at, 514
- Savings Bank (Post Office) for natives, 278-9
- Senna leaves, excellent quality of Sudan grown, 283
- Sennar Dam, cost and site of, 308-10
- Sennar Province, area, population, and scenic features, and gains, 509-10, the old empire and its history, 510-11, towns of, 511-12, ebony forests, 513, divisional districts, 514, education in, 515, police, 516, military patrols and the smuggling of arms over Abyssinian border, 518-19
- Sennar, town, the old and new, 511-12
- Serut fly, 510
- Shambat, Government experimental farm at, 331
- Sheikhs, 53, 376-7, 384-5
- Shendi, position and history, 420-21, headquarters of Anglo-Egyptian cavalry, 421
- Shipping, international, at Port Sudan, 205, 207
- Simpson, Dr. G. C., 325
- Simpsonette, or protective head net, 368
- Singa or Senga, Provincial Government headquarters at, 513, 515, foundation of, 515

- Slatin, Baron Sir Rudolf von, 70
 Slavery in the Sudan, 216-18, 441, and its repression, 512
 Sleeping sickness, 127, 487, 488, 493
 Smith, Colonel Hamilton, *Natural History of the Human Species*, 209
 Speculation in land, opportunities for, 352, attempt to control, 353
 Sport and sportsmen, 397-9, 403, 404, 459, 492
 Staek, Major-General Su Oliver Lec, 70, 279
 Stanton, Major E. A., 471
 Steamship lines from and to Europe, 180, transfer of steamers to Railway Department, 190
 Steevens, G. W., testimony to Sir F. Reginald Wingate, 68, quoted, 380, 383
 Stewart, Major General Su Herbert, 422, 438, 446
 Suakin, population, 498, dilapidation of, 499, historical associations, 500-501, 504-6, railway to Tokar, 501, ancient and modern buildings, 502, 504, school, 502-3, slave-trade of, 505-6
 Sudan, geographical characteristics, 1, ethnological transformations, 2, frontiers, 3, 518, French, 23, Italian, 3, physical features, 7, physical area, 6, 389-400, sunrises and sunsets, 14, Egyptian rule, condition of people under, 18-19, emancipation from, 37, British Government policy in, 25, general conditions in 1889-90, 32, travel, 35, 357-62, 366-8, 373, administered area, 36, Civil Service in, 42-6, social advantages in, 55, makers of the, 63, services in, 65-6, administration, system of, 77, boys, 85, taxes and taxation in, 93-4, 96-8, 426-98, finances, 106-14, provincial finances, 119, Loan Bill, 125, army, establishment of, 147, Sudanese battalions, 150, Sudanese women as soldier's wives, 151-2, education in, 160-68, railways, 172, fleet, 187, cost of living, 206-7, climate, 207, 475-6, native races, 208-14, 278-9, 327, 375, 377, 394-5, 405-6, 411, 435-6, 489, 522; officials, 211-212, Government, encouragement of missions, 241-2, agriculture, 284-285, 300, 326-8, 331, 343; a winter resort, 267, Commerce, Chamber of, 270, commercial products, 275-7, 280-81, 283-4, 329-30, 335-6, 338, 350-51, 428, 444, 484, 493, mineral wealth, 285-7, irrigation and agriculture, 299-301, cattle and live stock, trade in, 333-5, 416, 418-19, 425, 444, 448-9, 485, 490, 521, 526, cotton, administration plans for increased growing, 339, 343, ordinance conditions, 345, land, regulations for prevention of speculation in, 353, Land Laws, probable amendment of, 356, the original, 355-6, values, 474-5, desert vegetation, 378-9, transport animals, 380, 387, sport in, 397-9, 403-5, 492, provinces and divisions with area and population, 407-9, national holidays, 477-8
 Sudan Club, 265
 Sudan Convention, the, 260
 Sudan Development Company's experiment, 187, 474
 Sudan Gold Field Company, work of, 289-90, oil prospecting, 291
 Sudan officials, knowledge of native dialects essential to, 211-12
 Sudan Plantations Syndicate, Ltd., history of, 293-4, and Tayiba, 301-3, and cotton cultivation, 340, estate at Zerdab, 416
 Sudan regiment, first, 146
 Sudan Rubber Syndicate, operation of, 350
 Sudan Syndicates and development, 293
 Sudan Times, report on criminal trials at Sennar quoted, 62
 Sudd or papyrus plant, 294-6, failure to utilise commercially, 296-8
 Sudd region, 87, 313
 Sunrises and sunsets, 14
 Survey Department, work of, 324
 Talodi, 497
 Taufikia, an important trade centre, 529, cleanliness of, 530
 Taxes and taxation, 93, old Egyptian methods of, 93, modern methods, 93, principal in force, 94, 498, easy rates in force, 96-7, methods of collection, 98, Education tax, 166, difficulty of collecting, 426
 Tayiba, Government experimental farm at, 277, 301-3
 Telegraphs and posts, 71-3
 Telephone system, exchanges, installation, and subscribers, 71
 Tennyson, Lord, tribute to Gordon, 64
 Ticks and parasites, 373
 Times, *The*, quoted, 305-13
 Tobacco, restricted growth of, 283
 Tokar cotton crop, 343, control of, 345, 346, superiority of, 347

- Tokar, Government school at, 329, 344 ;
varying opinions of, 506 ; position
and harbour, 505 ; irrigation, 506 ;
historical associations, 507 ; modern
improvements and general pros-
perity, 507-8
- Tottenham, P. M., 306, 314, 316
- Tourists, ancient and modern, 401-2 ;
lure of big-game hunting, 404-5 ;
uncertainty of, 407
- Trade in Mahdi times, 100 ; improve-
ment in under British occupation,
100-101 ; comparative figures, 1906-
1918, 101 ; Great Britain's share in,
102 ; with North America, 103 ; in
Hashish contraband, 105
- Trader's Tax, 95-9 ; native objections
to, 95 ; fairness of imposition, 95
- Transit dues, 103
- Transport, 169 *seq.* ; animals, 380, 387
- Travel in Sudan, safety of, 35 ; method
of, 357-60 ; water difficulty and
wells, 360-61 ; bridges, ferries, river-
crossing, 361 ; importance of water
filtration and cleanliness, 362 ; medi-
cal supplies necessary, 363 ; food and
drink supplies, 364, 369-70, 374 ;
camp equipment, 365-8 ; dangers of
bad servants, 372-2 ; selecting a
camping site, 373 ; sunstroke and
its prevention, 377-8 ; difficulties
of, 390-94 ; luxuries of modern, 401-
402
- Treaty of 1899, 37
- Tribute, tribal, 95
- Turkey, conquest of Sudan, 211
- Uchali, Treaty of, 518
- Uganda, travel and transit facilities in,
199
- Um Dam and the gum trade, 485-6
- Um Nabardi gold mines, 289-90
- Union-Castle Line, 185
- United Presbyterian Church of North
America, missionary work in Sudan,
243
- Upper Nile Province, area and popula-
tion, 519 ; native tribes of, 519, 521 ;
agriculture and commerce of, 520 ;
principal towns of, 520
- Veterinary Service, work and divisions
of, 335
- Voltaire, quoted, 217
- Von Slatin, Sir Rudolf, Baron, 70
- Wad Medani, position and foundation
of, 427 ; trade and industries, 427
- Wadi Halfa: Abu Hamed Railway,
171-3 ; Kerma Branch, 171 ; railway
centre, 415, 447 ; historical associa-
tions, 446-8 ; cholera epidemic in
1896, 447
- Water, importance of supplies, 359-61 ;
sweet water and other wells, 360 ;
sterilising of, 362-3 ; absence of in
desert, 379
- Wau, capital of Bahr-el-Ghazal, un-
fortunate situation of, 412-13
- Webb, Sir Arthur L., 306, 308, 315, 316,
319, 320
- Weights and measures, confused Sudan
system, 166 *n.*
- Wellcome, Henry S., Research Labora-
tories, 132-7, 165, 209-10, 223 ;
benefactions, 139, 285 ; and Gordon
College, 162 ; staff, 238 ; welfare work
of at Gebel Moya, 225, 230-38, 514 ;
as student of prehistoric archaeology,
226 ; explorations of, 227, 250-57 ;
dealings with natives, 228-30 ; Sav-
ings Bank System, 233 ; food and
water difficulties, 235-6 ; workshops
and schools, 236-7 ; introduction of
sport, 237 ; owner of fine riding
camels, 382
- White Nile Province, area and popula-
tion, 526 ; cattle and live-stock
trade and lack of water, 526 ; prin-
cipal centre of, 527-30 ; agriculture
in, 528-9
- White Nile Route, 193-5 ; a trip up, 197
- White Nile scheme, Egyptian irrigation
project, 312 *seq.*
- Winds and rains, 10-11, 475-6
- Wingate, Sir F. Reginald, 67-70, 118,
162, 209, 241 *n.*, 242, 257, 260, 279,
307, 310, 384, 414, 432, 482
- Wingate, Lady, 260
- Women travellers, incongruity and un-
suitability of, in some parts of Sudan,
372-3
- Wood, Sir Evelyn, 65 ; and Egyptian
army reorganisation, 142
- Wood-loading, 197
- "Wooding," antiquated method of, 197

